

THE

Desert

M A G A Z I N E



AUGUST, 1942

25 CENTS



God's Desert

By EDMOND READ
Glendale, California

Winner of first prize in Desert Magazine's monthly amateur contest is this view of the Arizona desert, near legendary Superstition mountain. Taken with a 13.5 cm. Carl Zeiss Tessar on a 4x5 Speed Graphic. Exposure f18 at 1½ sec. with a Wratten A 25 red filter; Eastman Infra-red cut film.

Special Merit

The following photos were judged to have special merit:

"No Visible Means of Support," by Ted Jerome, Las Vegas, Nevada.

"Desert Tragedy," by Clifford B. Paul, Moline, Illinois.

"Navajo Butcher Shop," by Joe Orr, Los Angeles, California.

Desert Ant Hill

By ARLES ADAMS
El Centro, California

Second prize winner in the June contest was taken with a 2¼x3¼ Kodak Special. F8, 1/100 sec., late afternoon. Kodabromide paper, verichrome film.



DESERT Calendar

- JUL. 31-AUG. 2 Charity Horse show, Flagstaff, Arizona. Vic Watson, chairman.
- AUG. 2 Feast Day of Our Lady of Angels and Old Pecos dance at Jemez Indian Pueblo, New Mexico.
- 2 22nd Annual Smoki Ceremonials, Prescott, Arizona.
- 4 Feast Day of Santo Domingo and summer corn dance, Santo Domingo Pueblo, New Mexico.
- 6-30 Art exhibit at Museum of Northern Arizona, Flagstaff, features Arizona sculptors, Mary and Robert Kittredge, Mrs. E. V. Staude, Mathilde Schaefer.
- 7-9 Cowboys' Reunion, Las Vegas, New Mexico.
- 7-9 Rodeo at Tomblers Lodge, Mormon Lake, Arizona.
- 10 Fiestas at Picuris Indian Pueblo, Penasco and Abo, New Mexico.
- 12 Annual Fiesta and corn dance at Santa Clara Pueblo, New Mexico.
- 12-15 Inter-Tribal Indian Ceremonial, Gallup, New Mexico.
- 13-15 State Convention American Legion, Provo, Utah.
- 14-15 Belen fiesta, Belen, New Mexico.
- 15 Annual Fiesta and Dance, Zia Indian Pueblo, New Mexico.
- 18-21 Supreme Assembly, International Order of Job's Daughters, Albuquerque, New Mexico.
- 22 Fiesta and Dance, Isleta Indian Pueblo, New Mexico.
- 25-26 Davis County Fair, Lagoon, Utah.
- 27-29 State Convention Utah Medical association, Provo.
- 27-29 Kow Kounty Karnival, Richfield, Utah.
- 27-29 Box Elder County Fair, Tremonton, Utah.
- 29-30 Rocky Mountain Federation of mineral societies annual convention at Salt Lake City, Utah.

Weather

FROM PHOENIX BUREAU

Temperatures—	Degrees
Mean for month of June	85.0
Normal for June	84.5
Highest, on June 22	112.0
Lowest, on June 5	62.0
Rainfall—	Inches
Total for June	0.00
Normal for June	0.07
Weather—	
Days clear	26
Days partly cloudy	3
Days cloudy	1

FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month	84.8
Normal for June	84.7
Highest, on June 21 and 30	113.0
Lowest, on June 8	58.0
Rainfall—	Inches
Total for month	0.00
73-year average for June	0.02
Weather—	
Days clear	28
Days partly cloudy	2
Days cloudy	0
Release from Lake Mead averaged around 25,000 second feet. Storage during the month increased about 3,000,000 feet.	
JAMES H. GORDON, Meteorologist	

AUGUST, 1942



Volume 5

AUGUST, 1942

Number 10

COVER	"NAVAJO," by Josef Muench, 839 Mission Canyon Road, Santa Barbara, California.
PHOTOGRAPHY	Prize winning pictures in June 2
CALENDAR	Current events on the desert 3
LETTERS	Comment from Desert Magazine readers 4
CLIMATE	Why Deserts?, by WELDON HEALD 5
HUMOR	Hard Rock Shorty of Death Valley By LON GARRISON 8
CACTI	Coryphantha deserti By GEORGE OLIN 9
POETRY	"Sand Painting," and other poems 10
PERSONALITY	On the Trail to Keetseel By JOYCE ROCKWOOD MUENCH 11
DESERT QUIZ	A test of your desert knowledge 14
BOTANY	These Roses Grow in High Places By MARY BEAL 15
LANDMARK	Bowers Mansion, by W. A. CHALFANT 16
FIELD TRIP	Crystals That Fade in the Sunlight By JOHN HILTON 17
CONTEST	Prize announcement for August 19
ARTIST	Tree People of Joshua Forest By CARLISLE ELLIS 20
CONTRIBUTORS	About the Souths 22
ART OF LIVING	Desert Refuge, by MARSHAL SOUTH 23
TRAVELOG	Playground in the Utah Wilderness By CHARLES KELLY 25
NEWS	Here and There on the Desert 29
MINING	Briefs from the desert region 32
HOBBY	Gems and Minerals —Edited by ARTHUR L. EATON 33
HOBBY	Amateur Gem Cutter —Edited by LELANDE QUICK 36
PRIZE CONTEST	Announcement of awards for personal adventure stories 37
COMMENT	Just Between You and Me, by the Editor 38
BOOKS	"Man Who Killed the Deer," and other reviews 39

The Desert Magazine is published monthly by the Desert Publishing Company, 636 State Street, El Centro, California. Entered as second class matter October 11, 1937, at the post office at El Centro, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1942 by the Desert Publishing Company. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor.

LUCILE HARRIS, Associate Editor.

Manuscripts and photographs submitted must be accompanied by full return postage. The Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised for their safety. Subscribers should send notice of change of address to the circulation department by the fifth of the month preceding issue.

SUBSCRIPTION RATES

One year, including gold-embossed loose leaf binder	\$3.00
Two years, including binders for both years	5.00

You may deduct 50c each for binders if not desired.
Canadian subscriptions 25c extra, foreign 50c extra.

Address correspondence to Desert Magazine, 636 State St., El Centro, California.

LETTERS...

Let's Keep the Wildlife Reporters Straight . . .

Taft, California

Gentlemen:

A thoughtful friend loaned me most of the 1940-41 numbers of your magazine. In going through your Desert Quiz I got an average of 15 correct answers—though I did make a few lucky guesses. That ought to qualify me as an S.D.R.—senior desert rat. Now I don't see how I can get along without the magazine, and I am enclosing five bucks.

As a subscriber, may I "bawl you out" for reprinting from Glendale, Utah, a common error. That article mentioned where copper boundary markers, set in trees three feet above the ground, were now 15 or 20 feet up, and sometimes on the opposite side of the tree.

I have read the same yarn about deer horns placed in a tree crotch, and spikes driven in bird's eye maple trees in Michigan to foil timber thieves. It just isn't so. A tree grows from the tips. A spike driven three feet from the ground in a sapling, will be three feet up a century hence if the tree is still standing, except for variations that may be caused by erosion of the ground around the trunk.

Haven't you ever seen a wire fence spiked to trees, where the trunks had grown half way around the wire. And the wire was still three feet from the ground, not 30. A set of antlers placed in a sapling crotch six feet up today will be within easy reach a decade from now, if the mice don't get away with them.

Having gotten that off my chest, here's good luck and a long life to your unique and most interesting magazine.

W. H. IRELAND

One With the Sand and Stars . . .

Seattle, Washington

Dear Mr. Henderson:

This is just to express to you my delight on the arrival of each number of your magazine. Because in mind we are so perturbed, so anxious about life in the city, that to be taken away in thought to the great open spaces . . . to ramble around undistracted by crowds . . . and the noise of many tongues . . . is to find recreation and to feel that we are really one with the wind, sand and stars . . . and that it is good to live.

Once I lived in a desert town in the Laguna district in Old Mexico.

ADELAIDE GORDON

Seeking Minerals in Havasu . . .

Virginia City, Nevada

Gentlemen:

A copy of your June issue was loaned to me by Mrs. Pease of Sacramento, containing a very interesting article on "Havasupai" by Randall Henderson whose description of his trip recalls a trip made by myself to the locality.

I was sent to investigate the mining development conducted below Beaver falls in 1913. Previous to that time considerable money was expended endeavoring to find platinum. My notes show that my party was at Mooney falls March 18, 1913, elevation at that point 3100 feet.

I distinctly remember wading and recrossing the creek, but have no idea as to the number of times. We climbed over Beaver falls. I still have some souvenirs as a reminder of the trip. Other references in your magazine bring memories of former trips of investigation.

A. E. VANDERCOOK

Congressman's Favorite . . .

Caliente, Nevada

Dear Sir:

I am enclosing pictures of a cactus taken by Willard Smith of Caliente. This cactus is located on Route 93, 30 miles west of Caliente. The cactus is 26 inches in diameter, 12 inches high, and has 170 segments. In these parts this species of cactus is commonly known as pin cushion.

Our representative, J. G. Scrugham, on his trips over Route 93 always takes time to stop and look at this cactus as it is one of his favorites, and also one of his hobbies.

LEO W. HARTON, SR.



Nevada "Pin Cushion" Cactus

The Cat on the Hill . . .

Yermo, California

Dear friend Randall:

Several years ago there were inquiries as to the origin of name Cronese (appearing on most maps as Cronise). I had heard that it was an Indian word meaning wildcat, and that the Indians so named it because of the cat's image that sits on Cat mountain.

But the Automobile club insists it was named after a scientist named Cronise, who wrote about the Mojave in 1880.

I have talked with several old desert men who visited the valley in the '60s and they say it was named Cronese then, which was 20 years before Mr. Cronise's visit here.

A short time ago I had a long visit with a Pahute Indian who has been my friend. I asked him to say "wildcat" in his language. He pronounced it CRODthESE. The dth is slurred and subdued so that it sounds like an "n," but if you pronounce it "n" they will correct you. There is no doubt that the Pahutes saw the cat on the hill.

ELMO PROCTOR

Frosting on the Cake . . .

San Jose, California

Dear Mr. Henderson:

June LeMert Paxton, in quoting Wm. Shakespeare in your July issue, relieved my feelings somewhat. I delayed writing in regards to the lack of appreciation some one expressed for the harmonious notes given us by Marshal and Tanya South, for the simple reason I was unable to concoct suitable words for the purpose.

I am enclosing P.M.O. for a two-year extension to the Desert Magazine for the simple reason that it gives me the privilege of expressing an opinion. The beauty of the desert is brought to me only through the covers of Desert Magazine, thanks to the South family. I admit I enjoy other articles, but the frosting is taken from the cake after I have reread "Desert Refuge," as I can see and feel the desert's gifts more through reading their experiences than anything else.

WM. C. CHANDLER

Tribute to the Unknown Desert Woman . . .

Pasadena, California

Dear Mr. Henderson:

I have read with a great deal of interest Phil Stephens' story of the desert woman's poem that took 40 years to write. Possibly if more of our poets and so-called poets would emulate her example we would have more spirit and less dross in the resultant productions. Perhaps there wouldn't be so many poems, but I am sure that the standard would be higher.

My main object in writing, however, is to register a protest against allowing this treasure to be handed down without the author's name.

No doubt others will feel as I do, that such a gem should find a permanent abode in the collections of poetry that from time to time make their appearance. When such a time comes I hope the signature will not be anonymous.

J. ROSS REED

Desert Magazine staff shares your hope that the desert woman who wrote "In the Hearts of Men" is still living, and that her name will be disclosed. When that information is available you may be sure it will be passed along to our readers. —R.H.

Far Away From Manly's Trail . . .

Army P. O. 937

Dear Mr. Henderson:

The clock says nine p. m. but the sun is still way up in the sky so you can figure I am a long way north of Seattle, and still farther away from the desert.

Just received April and May numbers of your magazine and found plenty to bring back memories of happier days—saneer days too, though the true desert rat is never quite sane. I thought the pictures were extra fine and felt most sentimental in seeing my old friend the tortoise.

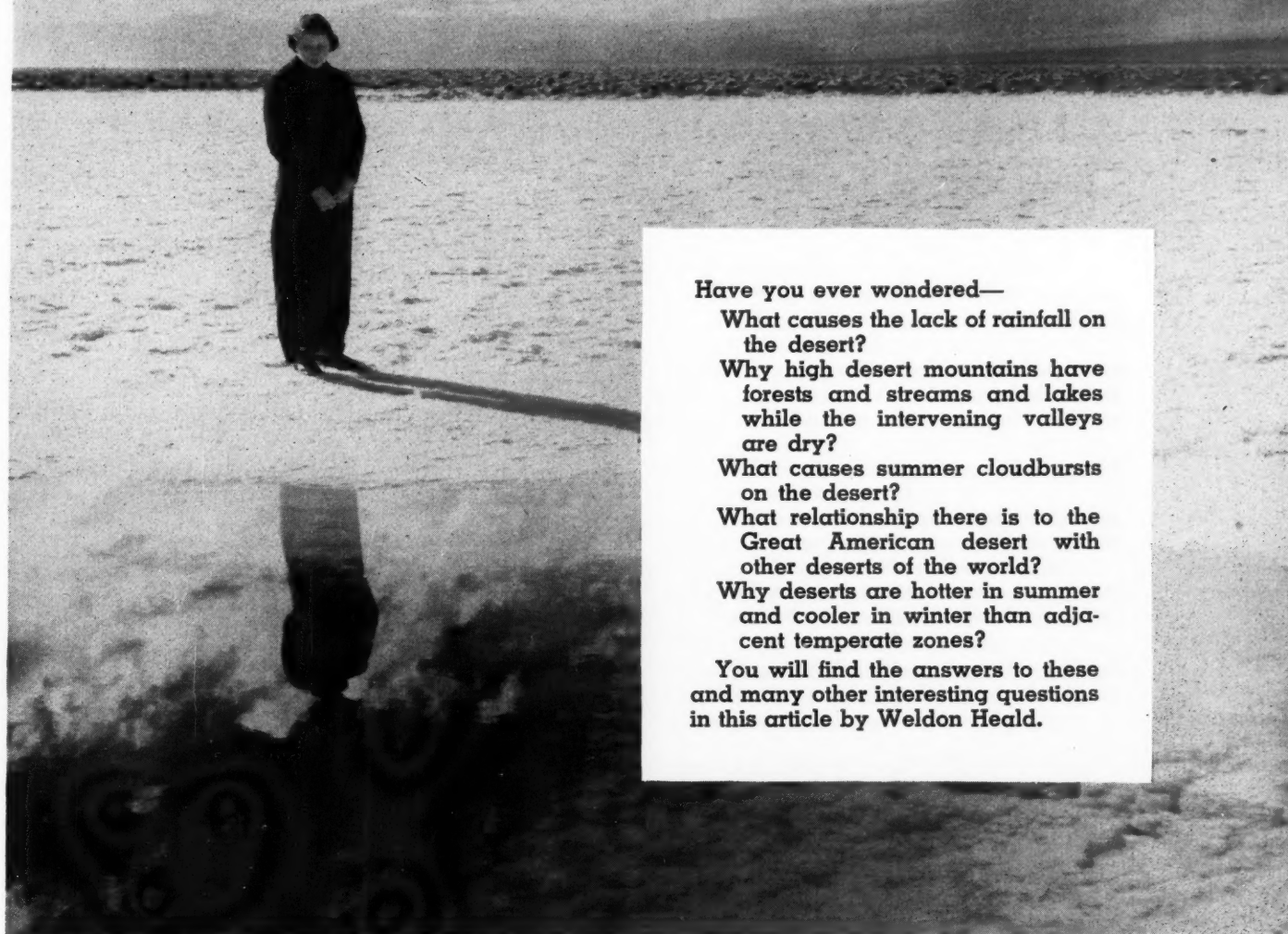
Keep up the good work and keep the war out of Desert Magazine. To truly love your forbidding alluring realm is going a long way toward true love of America.

I only hope I can be back before some one else unravels all the mystery of Manly's trail. Whoever can do that is entitled to plenty of space with you, but don't "fall" for another South Park Canyon fall like the last one. Excuse me for starting that battle all over again.

GORDON F. HELSLEY, Lt. Col. M. C.

The question of Manly's route through the Panamint mountains in the winter of '49 is still subject to controversy. Col. Helsley's reference is to Dick Freeman's story in the March '41 issue of Desert Magazine in which Freeman presented what he and others believe to be the Manly pass. Let's hope that in due time we may have Col. Helsley's version.

Why Deserts?



Have you ever wondered—

What causes the lack of rainfall on the desert?

Why high desert mountains have forests and streams and lakes while the intervening valleys are dry?

What causes summer cloudbursts on the desert?

What relationship there is to the Great American desert with other deserts of the world?

Why deserts are hotter in summer and cooler in winter than adjacent temperate zones?

You will find the answers to these and many other interesting questions in this article by Weldon Heald.

America's best known desert is Death Valley—yet this region of extreme aridity is not devoid of water. Photograph shows one of the crystal clear salt pools on the floor of the valley. Mrs. Hubert A. Lowman, wife of the photographer, is standing in a field of salt. Devil's Golf course in the background.

By WELDON HEALD

WHY Deserts?
Ninety-nine people out of a hundred would answer, "Deserts are caused by lack of rain, and don't be silly by asking obvious questions."

The one hundredth would peer at you over his spectacles—and very correctly reply, "In general, aridity is caused by terrestrial belts of anticyclones."

That makes it unanimous, they all agree, but it leaves us just about where we started. It doesn't explain why I have a Redwood in my front yard while you have a saguaro cactus.

Of course it doesn't rain much in the desert, but why doesn't it? Do deserts just happen or is there some definite reason? Let's go back to the beginning and consider the source of all earthly activities—

the sun. The sun's radiant energy delivered as heat upon the surface of the earth starts a complicated series of causes and effects worthy of Rube Goldberg himself.

The weather you are enjoying or cursing today is the result of air currents, ocean currents, high air pressure, low air pressure, winds, evaporation, rain, and snow acting upon each other and all originating from the fact that the sun heats the surface of the earth. And since climate is the daily weather of a place neatly tabulated and averaged for a long period, it follows that the sun must be responsible for the lack of rainfall which makes a desert climate. All we have to do is to follow up the processes by which solar energy is converted into world weather.

Next in importance to the sun's heat is

the atmosphere, that blanket of air which surrounds the earth. Everybody knows that warm air rises while cool air sinks. And so air heated by contact with the sun-warmed surface of the earth rises, but as it rises it expands and cools, finally sinking as cool air in another spot where the upward warm currents are not so strong. This ascending and descending air gives rise to a world-wide circulation of the atmosphere, never quite identical at two given moments, but settling into broad belts which have remained relatively stable for several thousand years.

Similar in nature, but even more complicated, are the ocean currents. In general they consist of warm surface currents flowing from the equator to the poles and a slow creep of cold water on the ocean



FIGURE 1—Shaded areas mark the two broad belts of desert which extend around the globe in both the northern and southern hemispheres. These desert belts are not continuous due to variations caused by geographical features.



FIGURE 2—Keeping in mind that rainfall is produced by the cooling of moist air, this sketch shows how damp breezes from the Pacific are forced upward by mountain ranges. At the higher altitude the air is cooled and precipitated as rain while the inland valleys remain dry deserts.

floors in the reverse direction. Local conditions, such as the sizes and shapes of the continents, depth and extent of the oceans and the straits between them, so change the natural trend of ocean currents that they deserve a special study in themselves. These currents of air and water act upon each other and complicate things considerably, but we now have the simple outline from which we can trace the different climates of the world—sun's heat, air circulation, and ocean currents.

Next let us look at the areas of ascending and descending air currents upon the earth's surface. The atmosphere at sea level has an average weight of nearly 15 pounds to the square inch. This is called the air's

pressure and is measured by the number of inches of mercury it will raise in a standard glass tube. About 30 inches is the average sea level reading. Air pressure varies, however, because whenever air is descending it has more weight than when it is ascending; that is, cold air is heavier than warm. So a high-pressure area is simply a place of descending air and a low-pressure area a place of ascending air.

The old familiar theory that everything which goes up must come down applies even to air, so that ascending and descending air currents tend to distribute themselves in alternating belts around the globe parallel to the equator. The arrangement of high-pressure and low-pressure belts is

similar in the northern and southern hemispheres. Both north and south of the equatorial low-pressure belt (ascending air) are sub-tropical belts of high pressure (descending air) extending from latitude 10° to latitude 30° in the northern hemisphere and a little higher in the southern hemisphere. Above these are the temperate belts of low pressure (ascending air again), approximately 30° to 60° north latitudes and 35° to 55° south latitudes. Then come the north and south polar caps with high pressure again. Although these belts are permanent and definite, we must remember that they show average air pressure only and that areas of high and low pressure can occur temporarily anywhere upon the earth's surface.

If the earth were not rotating about its axis air would simply flow from areas of high-pressure to areas of low-pressure. Due to the rotation of the earth, air is deflected to the right in the northern hemisphere and to the left in the southern hemisphere, resulting in winds which closely follow the pressure belts. The general east-west drift of air in the equatorial regions, called the doldrums, is known for its gentleness and its unreliability. Sailing ships are often becalmed for weeks in the doldrums. The sub-tropical high-pressure belts are the homes of the trade winds, northeast in the northern hemisphere, south-east in the southern hemisphere. These winds have been the joy of generations of sailors because of their steadiness and reliability. The temperate belts have westerly winds varied by "cyclonic depressions," while, in general, the polar caps are areas of easterly winds.

But all this is just background, stage setting, build-up. What kind of weather actually occurs in the various parts of the world with their different pressures and winds? Does the rainfall tend to arrange itself in belts too? It does, and in the same belts north and south of the equator. The areas of high average air pressure tend to be dry while the areas of low average air pressure tend to have rainy climates.

In both the northern and southern hemispheres there is the equatorial belt of heavy rainfall, the sub-tropical dry belts, the temperate rain belts, and the polar caps of generally light snowfall. The reason for this is not hard to find. Warm air holds more moisture or water vapor than cold air so that when moist air is cooled it gives up part of its moisture. The cooling of moist air is the only way in which an appreciable amount of rain can be produced. That is the most important connecting link in the series we are following from the sun's energy to the formation of deserts. Now we are getting somewhere. If that is



Damp currents of air thrust upward by mountain ranges are cooled in the higher altitudes—hence there is more rain on desert ranges and plateaus than in the valleys. San Francisco peaks in northern Arizona, entirely surrounded by arid desert, illustrate this phenomenon. Photograph by Hubert A. Lowman.

so, and warm air cools by ascending, then the belts of low air pressure must have more rain than the belts of high pressure, and deserts should be found in the two belts of sub-tropical high pressure. In general that is true; on the lowlands swept by the trade winds between latitudes 20 and 30 are most of the great deserts of the world.

But there is a catch to it. Nothing in nature is as simple as that. Not only are there places in the sub-tropical high-pressure belts which have an abundant rainfall but, in Central Asia, North America, and to a lesser extent South America, there are broad deserts extending right through the stormy temperate regions of low-pressure. (See Fig. 1.) Our own Great American Desert, stretching from the Mexican border to southern Canada, is one of these exceptions; it is wholly north of the sub-tropical belt and exists because it is within a great and mountainous continent. It is an exception but not a freak. Its reasons for being are the same as for all deserts—

high average air pressure. Let us see how it happens.

Large continents, such as Asia and North America, tend to be occupied by high air pressure in the winter and low air pressure in the summer, while over the adjacent oceans the opposite is true—the air pressure is high in the summer and low in the winter. This is because land is heated and cooled much more rapidly than water. The Great Basin of western North America is much warmer in the summer and colder in the winter than the Pacific ocean. If we go back over the relations between air pressure and rainfall, especially remembering that *the cooling of moist air is the only way in which an appreciable amount of rain can be produced*, we see immediately that this reversal of air pressures between the land and the ocean automatically makes for the aridity of the interior western states. It works like this.

In winter over the Pacific ocean the air, relatively warmer than that of the adjacent continent, tends to rise; not evenly

all over the ocean, but in areas of intense low pressure called cyclones or cyclonic storms. These storms travel, with many variations and side excursions, from west to east finally striking the west coast of North America and producing heavy rains from Alaska to northern California. If the continent were small or less mountainous, these storms would pass over it with little diminishment, giving generous rains to the interior. As it is, however, they meet with every kind of obstacle, so only the largest storms manage to surmount them all.

First there is the semi-permanent winter high-pressure area over the interior to deal with. This "anticyclone" is jealous of its privileges and sends out-flowing winds that often baffle attack. Southern Californians are familiar with the desert blasts of the famed Santa Ana wind, which several times each winter routs the advancing clouds of approaching storms. Then again the cyclonic storms are often deflected far to the north by the high-



Rapidly rising air currents on the desert in summer cause thunderstorms, even amounting to cloudbursts. Photograph by G. E. Barrett.

pressure area, passing weakly over Canada. Secondly, even if the storm is strong enough to break down the high-pressure area temporarily, it must surmount range after range of mountains before it can slide down the east slope of the Rockies and gather new hosts of moist air from the Gulf of Mexico. Mountain ranges, by forcing the air upwards rapidly, rob passing storms of their moisture. The air rising on the west coast slopes of the Coast, Sierra Nevada, and Cascade ranges, cools, precipitates its moisture and descends on the east side as a dry wind. On reaching Utah and Colorado the air rises again, but having much less moisture the rainfall is greatly diminished. (See Fig. 2.) So the winter rains in the low regions of the interior are very light.

Early summer brings a change. The winter high-pressure area breaks down because increasing sun heat causes the air over the land to rise while over the Pacific, now cooler than the continent, the air begins to sink, bringing about a reversal of pressures. In other words, the "anticyclone" spends the summer vacation at sea. This descending air means that practically no storms originate in the middle Pacific during this season. However, on land damp inflowing air from the ocean makes for fog along the coast and upward convection currents in the interior. These rapidly rising air currents cause thunderstorms, sometimes amounting to cloudbursts, and in many desert localities are practically the only rain that ever falls. As this condition persists for only the two or three hottest months of the year and the

thunderstorms are spotty and unreliable except on the high mountains, the greater part of the interior is arid while the low places are complete desert.

Every state in western America, therefore, contains arid regions, the total area running to five hundred thousand square miles. But it must not be thought that all this is desert—far from it. So important is the effect of altitude on rainfall that almost every mountain range and high plateau in the West is heavily forested and supports green meadows, running streams, and lakes. The contrast of climates in the West is tremendous, and the transitions sudden, contributing greatly to its charm and fascination. How often we have been on the cactus desert or sage plains and looked up to the long lines of pine and fir on the mountain tops or swam in a cool mountain lake a few hours from the sizzling desert below.

Deserts are not a recent innovation, nor are they due to a gradual drying of the earth. Apparently they have existed throughout geological time and at some periods greatly exceeded their present area. But appreciation of deserts is a new thing under the sun. Places to which we now go for rest and recreation were spoken of as, "arid and repulsive to the last degree," 50 years ago. Now that we have discovered the lure of the deserts, let us go to them, get inspiration from their many wonders, but it will be much more interesting if we take with us an understanding of them, a knowledge that such a masterpiece as the Grand Canyon was made by the unromantic reversal of air pressures.

Sez Hard Rock Shorty of Death Valley

By LON GARRISON



"Lost?" asked Hard Rock Shorty. "Sure I've been lost. When I was new in this country seemed like I was lost most o' the time. I c'd go out to get the mail an' get all tangled up worse'n a boy scout with a new compass."

Hard Rock thought sadly back to the days when he was young and life was full of confusion for one who had yet to learn his landmarks.

"Of course, after you get to know, there's lots o' things to tell what way is which an' there ain't no more reason for gettin' lost in the desert than there is in a sign factory.

"The compass plant's one o' the best directors we got in the desert. It's a little weedy lookin' jigger with just four leaves, one growin' out o' each side but it points six ways—north, south, east, west, an' up an' down. Three o' the leaves are all the same but the north pointer has a little black tip on it. In the fall when the leaves are beginnin' to turn yeller, that'n turns two or three days ahead o' the others. The leaf's so sensitive that bein' just that much further north makes the difference. If seeds fall down crooked, they sprout all right but soon as the leaves come out the plant twists around. Sometimes it'll twist itself plumb out o' the ground.

"I only saw one growin' crooked oncet. That'n got me headed wrong one day when I was dodgin' a argement with a depity sheriff an' I wound up in Daggett for 30 days in the cooler. After I was properly cooled I went back to take a look at that compass plant. It was off in its pointin' all right so I took a look around to see what the trouble was. Found where some dumb jackass had lost a big chunk o' magnetite right where this plant was an' it'd pulled it around nearly 90 degrees."



Close-up of the Desert Coryphantha. Photo taken by the author near Ivanpah, California.



Coryphantha deserti

By GEORGE OLIN

THIS little foxtail cactus is particularly interesting to those who have theories about the evolution of species in our desert plants.

It is a species which seems to have reached a fixed position as regards its adaption to the conditions of its range. Apparently it is the original form from which several other species have sprung. In explaining this theory it may be pointed out that *C. deserti* is confined to three counties in California—Inyo, San Bernardino, and Riverside—and a narrow strip along the Colorado river in western Arizona.

Engelmann states that both *C. deserti* and *C. arizonica* belong to the *vivipara* group and from this it might be assumed that they are more specialized forms of that species. However, field work in California, southern Nevada, and northwestern Arizona will prove that *C. deserti*, *chlordantha*, and *arizonica* are very close together and linked by intermediate forms while the type of *C. vivipara* which ranges farther north is quite different from these three. In general characteristics *C. vivipara* most closely resembles *C. arizonica*, which

is proper since their ranges adjoin one another. Thus it would seem that *C. vivipara* is related to *C. deserti* through the intermediate species *C. arizonica*.

Coryphantha deserti was first described by Dr. Geo. Engelmann in 1880. The type was collected at Ivanpah, California. Specimens in this vicinity are quite characteristic of the species. The plants are small; never more than 4 inches tall and usually much less. Solitary specimens are the rule; they seldom branch unless injured or of exceptionally large and robust growth. The plant body is surrounded by 15 to 20 spiral rows of grooved tubercles. Each tubercle is tipped with from 20 to 30 radial spines and 2 to 6 centrals. All the spines are comparatively short, the radials usually about ½ inch long, and the centrals slightly longer. They are all a grevish white near the base and the tips are a dull brownish red in color.

The flowers are borne at the tip of the plant and rise from the base of the new tubercles. They are about an inch high and the same in diameter. The sepals, about 25 in number, are very narrow and fimbriate in their margins; the petals are also fimbriate at the bases. The flower of the type can best be described as straw color with the tips of the petals shading into pale purple. Since the flower is highly variable in various localities it may range from almost a

good yellow to the pink of *C. alversonii*. The fruits are greenish red when ripe. They have a slightly acid taste somewhat less agreeable than that of *C. alversonii*. In time the pods dry and weather to a point where the seeds may escape.

In its northern range along the California-Nevada line, *C. deserti* grades into *C. chlordantha*. The intermediate form is small—the flowers are a poor yellow. As one goes farther north and east this form begins to take on the character of *C. chlordantha*. At St. George, Utah, the type of *C. chlordantha* is found.

At the juncture of the California, Nevada and Arizona state lines *C. deserti* grades into *C. arizonica*. The change is more abrupt in this case and in several localities the types of the two species may be found together. *C. arizonica* is a much less firm plant and is more sparsely spined than *C. deserti*.

This is the theory advanced here: that *C. deserti* is a species which has reached stability, that it is a species which possesses many of the characteristics common to the other three species, and that since it apparently is oldest and most fixed, and the intermediate forms linking it to the other species can be traced, then the other species are forms of *C. deserti* which have been changed enough by the slow process of evolution to deserve species rank.

Botanists have found the plants in this group hard to separate into definite species. It is impossible to lay down hard and fast rules as to classification. Only by field work is one able to form any accurate idea of their species rank. Nature presents a problem in plant evolution along the California-Nevada line for anyone interested to solve. Every answer will be different—one of them may be right.



Copyrighted photograph by D. Clifford Bond.

WHO GIVES HIS HEART

By GRACE CULBERTSON
San Diego, California

I now perceive I have small right to speak,
Who only know the desert passing well;
Who from well-traveled roads my lyrics seek,
Whose words of bright oases briefly tell.
True testimony comes from those who earn
Initiation to its ancient spell
By braving perilous lone trails to learn
That secret charm that nothing may dispel . . .
Who has not dared the risk of shadowed death
And an anonymous sun-sepulchre
To worship beauty with his every breath,
Though restless sands so soon his footsteps
blur,
Need not the desert sing, but he alone
Who gives his heart, to be the desert's own.

WASTE LANDS

By GRACE S. DOUGLAS
Burlingame, California

I give thanks for the waste lands the plow will
never turn,
For gnarly trunks of juniper no stove will ever
burn,
For yellow clouds of mustard bloom that float
above the trail,
For bark of lone coyote, for the mating call of
quail,
For endless stretch of desert sands with over-
arching skies
Where one may free imprisoned dreams and
rest world-weary eyes.

GIANT JOSHUA TREE

By MARY APOLLINE FRITZ
Los Angeles, California

Out in the desert there it stands
Silent, gaunt and grey with age
Deep rooted in the changing sands
Among the greasewood and the sage.

Far up above its fellows gnarled
It proudly rears its branches where
The winds have twisted, bent, and snarled
Around a trunk quite bleak and bare.

Stern and grim this giant is
But birds have found a place to rest,
Tight in the crook of an arm of his
They have built a sheltering nest.

High among its limbs grotesque
The desert night winds play
The tunes of a jester all possessed
Merrily lauding his monarch's sway.

Out in the desert there it stands
Among the greasewood and the sage,
Undaunted still by Time and sands,
The Monarch of who knows what Age.

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

The chipmunk toils assiduously;
He's always on the run.
No doubt he gets his vitamins
From working in the sun.

Sand Painting

By RUNA B. RUHLE
Claremont, California

The wise Hah-tah-li skilled in healing lore,
To help an ailing member of his band,
Kneels down upon a floor of clean white sand,
And makes the potent medicine of yore;
The powdered rocks in brilliant colors pour
In ordered measures from his well-trained hand,
Conforming to the pattern that was planned
By People of the Sky long years before.

But when the golden disk fades from his eyes
Through turquoise gates, the picture-prayer is
done;

Serenely, without questioning or qualm,
He keeps a law no tribesman may despise—
That sacred paintings vanish with the sun—
So wrecks his labor with a sweeping palm.

TO A CALIFORNIA DESERT

By LELA M. WILLHITE
Salinas, California

Some like tall trees of emerald green
Wandering across a mountain's base—
I like a smooth long stretch of sand
With nothing but unlimited space.

STRICKEN SAGUARO

By WILLIAM RICHARDS
Tucson, Arizona

The timeless mountain purpling in the west
Had been your friend through centuries untold;
Papagos and Apaches called you old
E'er white men sought your dubious shade for
rest,

Pausing in their insatiate search for gold.
You thorny veteran, mocking every test
Of Time—by winds made strong, by drought
made bold,
Saguaro, was Eternity your quest?

I saw your horny shadow on the sand
Grown long to warn the coyote day was done
But yesterday; barren today, the spot
Where staunch and silent you were wont to
stand;

Yes, e'en to you the worm of time had come
To blight your ancient heart at last with rot.

WILD SANCTUARY

HUNTINGTON BARKER
Hollywood, California

I saw a lonely desert plot
Alive with cactus thorns.
And there upon that sandy spot
I saw a toad with horns.

This garden with its bristly spikes
Untended and uncured
Is just the sort my fancy likes
Because it's undisturbed.

SUPPLICATION

(With apologies to the spirit of Dick Wick
Hall)

By JEAN McELRATH
Wells, Nevada

I'm an old Desert Rat and though I've tried,
I can't get used to a water-soaked hide.
My whiskers drag with the weight of sand
That rain has turned into muddy land.
I'm growing webs between my toes
And I need a raft so I can doze.
I dare not sleep for fear I'll sink
And not come up in this awful drink.
Maybe the turtles are feeling at home,
Or those darn bull frogs that live in Salome;
But give me, Lord, before I die,
Just one more day with a clear blue sky
And dry desert sand for under my feet.
Gol dang it, Sir, turn on the heat!



The Navajo guide lets his horse satisfy its thirst before himself taking a drink.

On the Trail to Keetseel

By JOYCE ROCKWOOD MUENCH

A CLOUD of dust came rolling toward us out of the blue Arizona sky. As its billowing form approached, vague outlines began to appear and then to clarify before our eyes. It was a Navajo family with herd of sheep, wagon, children, dogs and all.

Seeing our car, the procession moved out of the ruts to give us the right of way. A small boy on a shaggy burro crowded some of the sheep into the grey sage and the Indian ponies willingly pulled the wagon onto bumpy terrain to escape the iron monster in which we rode.

What a picture they made! The simultaneous assault upon the eyes, the ears, and the nose, was like the crashing of unremembered harmonies in a great symphony. The colorful costumes, the bright red wagon, the realistic grouping of the animals were all so much a part of the desert, so at one with this land of contrasts, that my companion and I suddenly felt ourselves to be intruders—strangers in an ancient land.

Clouds, wagon and odors were all gone before I could get the scene into proper focus. But the vivid recollection of that pic-

There are many odd and unusual things on the desert—but after all, the most interesting subjects in this great land of pastel horizons are the humans who have made their homes here for countless generations. Human nature is always a fascinating subject, and on the desert especially so. And if you agree with this conclusion you will enjoy Joyce Muench's story of the Navajo guide who led her along the trail to an ancient cliff dwelling in northern Arizona.

ture has returned often, as a kind of preface to all that I was soon to learn about the Navajo way of life. We had arranged to ride, in the company of a ranger and an Indian guide, to the remote ruin of Keetseel the next day.

The ranger had a horse of his own and Bob, the Navajo, brought two more for the all-day trip. The trip to the cave of Keetseel was nine miles each way and then 14 more miles remained before the day was over for him. His price, for all of this was \$2.00.

Bob is the nephew of a medicine man



The tasks of the Navajo women, like their sisters elsewhere, are never done. Many of the women still grind corn by the same methods used in prehistoric times.

and has been carefully schooled in the ancient lore of his tribe. Perhaps the Navajo, like the Apache, came from the north. There is a touch of the Oriental in his features and more than a touch of it in his philosophy. Like the Chinese, he is never in a hurry.

We mounted our horses and with a packet of lunch and several cameras, started off through the low forest of juniper in the direction of the "Cave of the Broken Pottery," Keetseel. Bob, tall and lanky, rode his pony as though he himself were a part of the four-footed animal, sure, swift, and utterly at home on the great plateau. He had brought no lunch for the ride and if we had not urged him to share ours, would have had nothing to eat from dawn until after dark. He is innured to hardship. There is no such word in his vocabulary.

Where the juniper grew scraggly and gradually gave way to sage, a canyon suddenly appeared before us. Without a word, or even a signal, the Indian led us off the trail and down an arroyo. The ranger himself had never been over this route before and was delighted to find that it brought

us much sooner to the sandy bed of the Tségi canyon. Bob, though his own grazing lands were far from this spot, knew it all like a book. The ranger took the opportunity to tell me about an evening he had spent in Bob's company.

Hosteen-begay, or Bob, as we called him, has been to college. He is as at home at the white man's dinner table as he is on the desert and mountain trails. The ranger had invited him to dinner one evening. In the expansive mood that followed a good meal, the host was boasting a little about his knowledge of Shakespeare.

"I probably know more of his works than any man on the whole plateau." It seemed a safe enough boast. He began quoting. Once his memory failed him. The Indian, meanwhile, was watching the warm blaze in the fireplace and avoided his host's eye. A polite silence lengthened into an uncomfortable one. The ranger's wife looked in amusement from the fair face of her husband to the dark one of her guest. It was evident at last, that the ranger was not going to recall it, so Bob quietly finished the quotation for him.

I was moved to question why this edu-

cated youth should live in the wilds with a tribe, even if his own; that is still centuries behind in its thinking and in many of its ways. The ranger assured me that the heritage of a culture is not so easily cast aside. Nor is the Indian culture as crude as many of us have been lead to believe.

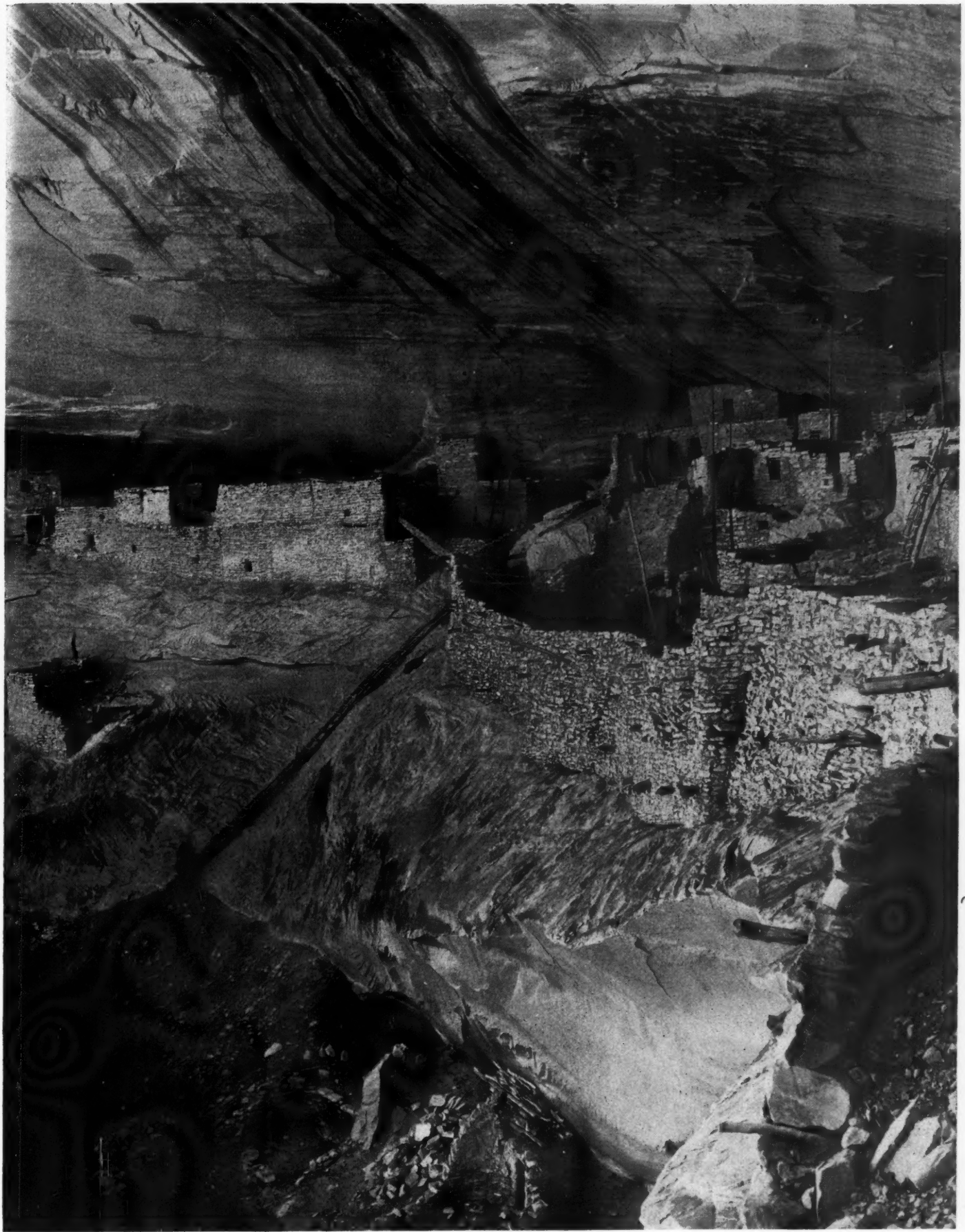
As we rode along, I made the most of every chance to speak with Bob of Indian things and ways, and tried to be satisfied with the terse expression and the Navajo dislike for a direct question or answer.

Bob's uncle, Pesh-la-chi, is 67 and has never been out of Indian country. He is perhaps the last of a long line of medicine men. For the young Indian who goes to the white man's schools, never quite captures the point of view that comes from a horizon bounded only by tribal traditions: How the earth was created and how the Indian people came upon it, and all the great wealth of Indian legend. These are things the medicine man does not lightly tell to his white brothers. If Bob had never gone to college, he would, no doubt, have followed his uncle. He stands now, between two worlds, neither of which he can entirely embrace. He is caught in a world between an old culture dying and a new one being born.

We pondered these things, in our several ways, as we came to a sparkling stream, rare enough in this dry land. The Indian let his horse satisfy himself before he stooped down to drink of the cool clear water. It was almost noon and we decided to stretch our legs and rest a little before pushing on. As we sat and talked or listened to our guide, a rabbit scuttled through the brush, and inquisitive birds queried our purpose. Breaking through some of his Indian reticence, Bob told us of his early life and of the gentle people that are his kin-folk.

When he was very young, his father died and he and his sisters were taken into his uncle's family. It made a large group. His mother, and her older sister, Pesh-la-chi's wife were the only grown women, but there were four sons and two small daughters. Then Pesh-la-chi's father still lived, like an ancient god himself, Bob often thought. He must always have a warm place at the fire and be given the choicest bits of food. And when the old man spoke, the children, the women and the menfolk as well, listened. For when one has seen the sun and the moon come up and go down as often as old man Hosteen Cye, his words were worth hearing.

Often at night Hosteen Cye told the whole family stories of olden times before the white man came and even before the Navajo had come to this part of the country that they now looked upon as their own. The warm winter hogan was secure against the cold wind that howled outside. The children were tucked away in blankets around the circular edge, close to where the big timbers went into the ground. As



The remote and lovely old cliff ruins at Keetseel, "The cave of the broken pottery," in Navajo national monument, northern Arizona. Well sheltered beneath a huge overhanging wall, these ruins have been unusually well preserved.

he lay there, little Bob could follow the straight line of the wood up to where it pushed through the roof and where the smaller branches closed all but a hole for smoke.

A small fire burned in the center of the earthen floor, and around it sat the grown-ups in varying positions of perfect relaxation and contentment. There would be long silences when only the wind lifted a little and a lamb cried out sleepily from the corral nearby. Or perhaps it was a distant coyote's voice that made the small Indian feel safe and secure in his warm blankets. He would be lulled to sleep by the low voice of the old man telling the old tales.

There were stories of how the use of one's real name, not the one like "Bob" or "Wide Hat," but the name given in christening, by an enemy or even a careless friend had brought harm to a man. For evil forces lie in wait to cast their spells upon such people. To take a hair, or a piece of nail from an individual was to get a definite hold over him. The college-bred Bob was still not able to laugh at this idea, nor at the belief that to dig into the silver mines known to the Indians, was to hurt their mother earth and so to risk having evil spirits come and take the land from the Indian. Who can gainsay that?

It was with a feeling of having journeyed back into another time and land that I realized we had spent a full half hour at our lunch, and that the mystery and beauty of Keetseel still lay ahead.

When we came to the foot of the great cave that has protected this ancient, deserted village from the rain of the last 700 years or so, we tied our horses and made ready to climb the tall ladders up to the cave. The ranger was ahead and hearing no step behind me, I turned to see if Bob were coming. The Indian stood rooted to the ground beside his horse. I could not read his face as I might have a white man's, but I realized that he had no intention of joining us. The ancient people dwelt in these cave houses and who knows what spirits linger there? No Indian will approach them. They have stood untouched with their wealth of pottery and the story of their erection and final desertion waiting to be revealed. It has remained for the white man to despoil them, in hope of some small profit.

Keetseel itself deserves many pages. But this is Bob's story. He waited with not the slightest show of impatience until we had seen all that we wanted and had photographed to our heart's content.

For a while, on the return trip he had nothing to say. It was as though he might be pondering our visit to the ruin, or perhaps he half expected to find us changed.

When we had climbed up out of the last arroyo and were again on the high plateau, Bob led us by a different route on the way home. A hogan appeared some-

what miraculously out of the low growing trees. We could hear, even from a distance, sounds of chanting. We climbed off our horses and approached quietly. Taking Bob as an example, we stood at the opening of the hogan. I saw perfectly illustrated the courtesy with which an Indian greets his host. There was no word spoken for some minutes. Even had I not known that it was proper to be quiet, my astonishment might well have kept me silent while I took in the strange sight.

A child of about five years was sitting on a blanket in the center of the hogan, naked. Near her a medicine man sat. It was he who was chanting. Whether in words or only with a sort of humming, a guttural sing-song that was almost hypnotic, he was making passes over the dark head. What else he did was not too clearly to be seen, but I recall vaguely that there were leaves, colored sands, shells nearby. There were a number of other Indians, too. A small fire burned with some aromatic scent filling the air. The vesture of time seemed to have fallen in pieces and the past to be gleaming through in the persons of this Indian medicine man and his young

subject. He was healing by the oldest kind of magic spells, by song and odor, by the hopes of human hearts.

I was aware that Bob was speaking, very quietly to another Indian near him. Having received a brief reply, our guide turned and started off back toward the horses with the ranger and myself following.

Bob put his horse into a stirring gallop, almost as soon as we were back in the saddle. There was no opportunity to ask him the many questions that were on the tip of my tongue. Far from being tired, our horses entered into the race, and when we pulled up at camp, I think I was more breathless than the horse I rode.

After a few minutes of quiet talk, Bob swung his long frame into the saddle and disappeared like a shadow into the darkness of the trees. I looked after him with regret, for it seemed that out of my ken was slipping the embodiment of the Indian spirit, gentle, strong, silent as deep water, and possessed of a sustaining philosophy which the white man can never hope to claim as his own. To myself I said, "Good-night, Bob."

TRUE OR FALSE

This month's True or False covers the usual wide variety of subjects—geography, history, mineralogy, botany, literature, and the general lore of the desert. It hardly is likely that any one person will know all the answers. In fact, the average reader will not answer 10 of them correctly. A score of 15 is exceptionally high, and any person who exceeds that number is one of those super-students of the desert country. The answers are on page 32.

- 1—The fangs of a rattlesnake are in its lower jaw. True..... False.....
- 2—The commanding officer of the Mormon battalion on its trek to the Pacific was Kit Carson. True..... False.....
- 3—Joshua tree belongs to the palm family. True..... False.....
- 4—A stand of beehives is known as a lapidary. True..... False.....
- 5—Showlow is the name of a town in Arizona. True..... False.....
- 6—A horned toad belongs to the reptile family. True..... False.....
- 7—Raton pass is one of the gateways into Death Valley. True..... False.....
- 8—The only difference between an amethyst and a quartz crystal is the color. True..... False.....
- 9—Barstow, California, is on the banks of the Mojave river. True..... False.....
- 10—Goldseekers who came west over El Camino del Diablo crossed the Colorado river at Ehrenberg. True..... False.....
- 11—Dinosaur national monument is in Utah. True..... False.....
- 12—Chief Winnemucca was an Apache Indian. True..... False.....
- 13—A U. S. mint was once located at Carson City, Nevada. True..... False.....
- 14—George Wharton James wrote the book, Wonders of the Colorado Desert. True..... False.....
- 15—The trading post at Cameron, Arizona, overlooks the Grand Canyon of the Colorado river. True..... False.....
- 16—Largest city in Arizona is Tucson. True..... False.....
- 17—A Navajo hogan always faces the east. True..... False.....
- 18—The blossom of the mescal plant is yellow. True..... False.....
- 19—Homes of the Pueblo Indians are never more than one story in height. True..... False.....
- 20—The Hassayampa river of Arizona is a tributary of the Gila. True..... False.....

On the mountains and plateaus that thrust themselves up from the floor of the desert, there's a gnarled twisted perennial which the botanists call *Cowania*, but which long ago was given the common name of Cliff rose. In ancient days it was a useful plant for desert Indians, and today it provides a lovely decoration for the mountain trails and highways.

These Roses Grow in High Places

By MARY BEAL

EVERY spring I pay homage to the Cliff roses in the Providence mountains of the eastern Mojave desert in California. Clearly etched in memory is the vision of a superb colony of roses six or eight feet high, which I came upon near the end of a day of mountaineering up Gilroy canyon. Their flower-studded branches swayed gently in the breeze, glowing in the late-afternoon light and exhaling an exquisite fragrance. The lower reaches of that canyon were transformed into Elysium. Margaret Armstrong extols the luxuriant beauty of the Cliff roses in the Grand Canyon, but I'm sure they do not outshine that Providence mountain galaxy enshrined in my memory.

It isn't a true rose according to scientific classification, but even the botanists recognize the common name that has been given to this lovely blossom. The botany books list it as *Cowania mexicana* var *stansburiana*, some of them omitting the "mexicana."

Since the rose probably is the best known flower in the world, it is very proper that the desert should have its own member of this world-wide family—and so we will continue to call it the Cliff rose regardless of what the botany books may say.

If you'll follow me to some of the mountain areas in the eastern Mojave, Arizona, southern Nevada or Utah, we will find Cliff roses growing amid the rocks, on the ledges and slopes, picturesquely gnarled and twisted, and blooming from May to August according to the altitude and local conditions.

Do not look for the large pink wildrose that adds charm to the prairie and eastern roadsides, and some parts of the West. The flowers of the Cliff rose are small, $\frac{1}{2}$ to $\frac{3}{4}$ inch across with light creamy-yellow petals centered by numerous golden stamens, the calyx very hairy and glandular.

The woody much-branched bushes are sometimes 10 or 12 feet high in favorable locations, but more often from 2 to 8 feet with a shreddy trunk and sometimes growing from a rock with no soil visible.

The dark-green leathery leaves are very small, $\frac{1}{4}$ to $\frac{1}{3}$ inch long with a few short blunt lobes, white-wooly underneath and glandular, growing in clusters. When the shrubs are in bloom the leaves are almost concealed by the flowers which crowd every branchlet. The seeds develop silky, plummy tails about 2 inches long, giving the bush in fruit a feathery appearance.

The *Cowanias* can be given credit for utility as well as beauty. In early days the Indians found the inner bark useful in mak-



Cliff Rose—but it isn't a true rose.

ing material for garments and mats, footwear, string and rope. Browsing animals do not disdain it for feed, though its bitter flavor has earned it the name Quinine bush in some parts of Arizona.

Another member of the Rose family, found in the same general areas, has enough resemblance to the *Cowania* to be sometimes mistaken for it by a novice. So let's take note of the distinguishing differences as listed below:

Fallugia paradoxa

Commonly called Apache Plume, for the numerous plummy tails attached to the seeds and supposed to resemble an Indian's feather head-dress. The bush is seldom over 5 feet high, often less, the leaves much like those of *Cowania*. The flowers are larger, usually about $1\frac{1}{2}$ inches broad with pure white, cupped petals, and grow singly on long peduncles. Because the flowers are scattered the bush is less noticeable than the Cliff rose but in fruit the Apache Plume manifests quite pronounced individuality. Its fine, silky, plumose tails turn fawn color or purplish and the shrub appears to be covered with a soft delicately-hued fluff. It too is a good forage plant, even better than *Cowania* because of its pleasanter flavor.

BOWERS MANSION

W. A. Chalfant, veteran writer, historian and publisher of Bishop, California, won Desert Magazine's landmark contest for June. He identified the accompanying picture as the Sandy Bowers mansion near Carson City, Nevada—and his story of colorful Eilley and Sandy Bowers is published on this page. This June contest brought more entries than any other landmark during the 4½ years Desert Magazine has conducted these prize events, and the judges spent many hours checking them as to completeness and accuracy before reaching a decision. Many excellent manuscripts were submitted and in all instances where postage was enclosed they have been returned. Thanks to all the contestants—and we are sorry there were not more prizes to be given.



By W. A. CHALFANT

BOWERS Mansion, on Highway 395, eight miles northwest of Carson City, 21 miles south of Reno, Nevada, was more a part of Comstock lode history than the palaces built by the bonanza kings.

Eilley Orrum (christened Ellison) was a Scotch lassie who at 15 was converted to Mormonism, came to America, and became wife No. 1 of missionary Stephen Hunter. Her "star of destiny" told her she would be "fruitful and multiply," and become immensely wealthy. Ten years with Hunter failed to fulfill either prophecy, and when he polygamously added three "nieces" Eilley bought a \$15 divorce.

Next she became Mrs. Alexander Cowan, but fared no better. They moved to Gold Canyon, Nevada. Boarding miners and washing their clothes provided her subsistence. Boarder Rogers failed to pay and she took over his 10-foot claim. Her peepstone foretold riches there.

Orders came from the Mormons to re-

turn to Salt Lake City. Eilley told Alex to go and stay gone, and divorced him for desertion.

Rogers' claim adjoined that of Lemuel Sanford (Sandy) Bowers. An early portent had disclosed to her the initials "S.B." and she soon married Sandy, 14 years her junior. The prophecy was fulfilled. The combined claims yielded \$300,000 a year.

With wealth seemingly unlimited Eilley indulged her ambition to have Nevada's finest mansion. She chose a site facing Washoe lake and against the Sierra. The building was of cut stone. A description of its furnishings reads like a tale from Arabian Nights. Door knobs and hinges were of Bowers mine bullion—although silversmiths later said the makers had supplied plated hardware and stolen the silver. Windows were plate glass, skylights Bohemian glass. Mirrors cost \$3,000 each, lace curtains \$1,200 each. Gold-framed paintings, marble urns, fountains lined

with imported tile harmonized (in cost) with all else. Unused shelves of books were bought by the yard.

Eilley, acclaimed "Queen of the Comstock," decided she should visit the Queen of England. Before their departure Sandy gave a banquet. He responded thus to the toast "Our Host:"

"I've been in this country among the first that come here. I've had powerful good luck. I've got money to throw at the birds. Thar ain't no chance for a gentleman to spend his money in this yer country and thar ain't nothin' much to see, so me and Mrs. Bowers is goin' to Yoorup to take in the sights. One of the great men of this country was in this region a while back. That was Horace Greeley. I saw him and he didn't look like no great shakes. Outside of him the only great men I've seen in this country are Governor Nye and Old Winnemucca. Now me and Mrs. Bowers is goin' to Yoorup to see the Queen of England and the other great men of them countries and I hope you'll all jine in and drink to Mrs. Bowers' health. I have plenty of champagne and money ain't no object."

They went to "Yoorup," stayed more than two years, failed to meet the queen, but bought many costly nicknacks for their mansion.

The Comstock began to slump and the Bowers mine like others dropped in production. Though Eilley's peepstone predicted more wealth it failed to appear. Stock fell from \$400 to \$8 a share.

An adviser told Eilley that more stock must be sold or development of the mine must stop. In this distressing time in 1868, Sandy died. Suit was brought to recover some of the money that had been "thrown at the birds." Judgments were secured, but the debtors had disappeared. Magnate Sharon had bought Bowers stock, and became owner of the mine. The mansion was mortgaged. Payments could not be met. The mortgage holders arranged a lottery. Eilley received 1000 of the 40,000 one-dollar tickets, the mortgage holders another 1000. The rest were unsold but participated in the drawing. An unsold ticket won and the mansion reverted to Eilley.

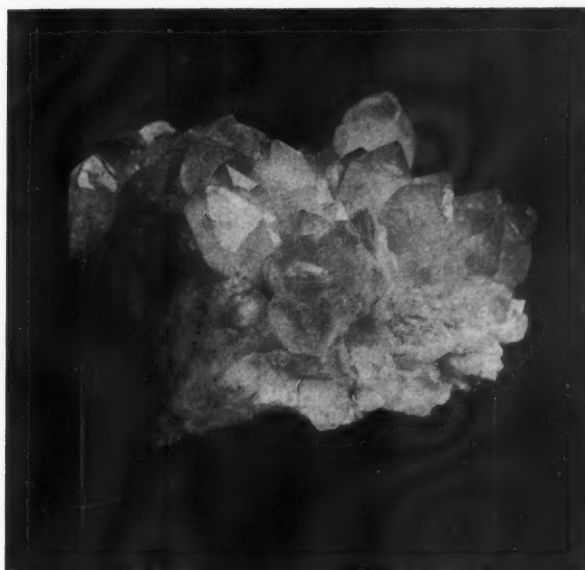
But there were more debts, and creditors finally took over the place. It went from one owner to another. A plan to make it a Monte Carlo failed. It now stands, well preserved, the property of Henry Riter, who keeps it open to the public.

Eilley as the "Washoe Seeress" subsisted on her meager income as a soothsayer in Virginia City, Reno and San Francisco, never abandoning hope that the Comstock would come back. She passed away in the King's Daughters home in Oakland in 1903 at the age of 83. Henry Riter brought her ashes back to the mansion to rest with those of Sandy and their adopted daughter, Persia, who had passed away some years before.

Visiting the old Nevada mining camps at Rhyolite and Bullfrog, John Hilton met some interesting people and was given permission to visit claims where fine amethyst crystals occur in the quartz seams in the rocks. John's story in this issue of Desert Magazine will give you a few tips on how and where to hunt for these semi-precious gem stones.

Crystals That Fade in the Sunlight

By JOHN HILTON



A black and white photograph hardly does justice to this beautiful lavender-tinted cluster of amethysts. This was among the crystals brought home from Bullfrog by John Hilton.

I HAD always wanted to see the ghost mining camps of Bullfrog and Rhyolite, and when my friend Ed Giles at Goldfield told me there was a hill in that vicinity where amethyst specimens might be obtained, I was more eager than ever to make the trip.

It was late in the evening when I drove into Rhyolite. The sky was overcast. It does not rain often in this country—but when the clouds do unload here they are usually very generous with their water.

My mental picture of Rhyolite was of gaunt weather-stained buildings with roofs and windows missing—ghost skeletons in the desert.

Imagine my surprise then when I rounded a bend and saw a colorful display of lights gleaming through the stormy night. It could easily have been a section of the main street in Las Vegas.

The lights were on the fine old railroad station which once was the pride of Rhyolite citizens. No trains have come this way for many years, but some one had taken over the substantial old structure and brought it back to life. A big sign across the front read "Ghost Casino." Music from a juke box wailed out on the desert air.

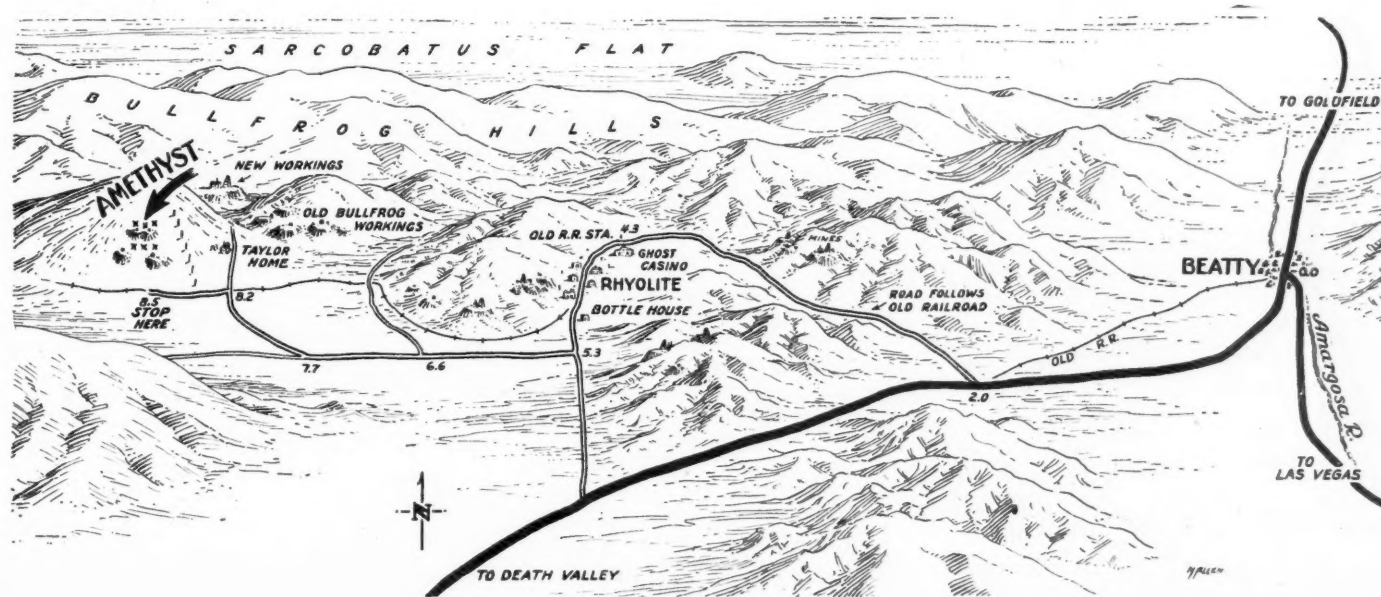
I recalled that when I was in Las Vegas earlier in the week some one had told me that I should get acquainted with N. C. Westmoreland at the casino in Rhyolite. He was described as "quite a character." One of my informants offered to take oath that at least one percent of the yarns told me by Westmoreland would be true—but that the other 99 percent would qualify him as the most artistic liar outside of Death Valley.

As there were no other lights in town,

I decided this must be the Westmoreland manor. There was ample evidence that I had guessed right when I entered the place and saw the walls adorned with various gold-sealed certificates attesting to the fact that the proprietor was the world's champion prevaricator.

His stories were worth traveling a long way to hear. No one but an honest-to-goodness desert rat could ever attain such skill in the art of telling tall yarns. Like other professional liars, Westmoreland never resorts to tales that are vicious or harmful. They are told merely to entertain the tourists who come that way.

But not all of his information was in the realm of fantasy. He informed me that if I really wanted to learn the facts about the Bullfrog mine and the amethyst deposits nearby I should get acquainted with the Taylors, who lived at the mine. You



will find them very friendly folks, he assured me.

I spread my sleeping bag that night on the veranda of the old railroad station. Next morning as I pulled up the grade that led to the Bullfrog mine I saw a woman standing on the porch of one of the camp buildings. It was Mrs. Rosa Taylor. She greeted me with a cheery smile that I soon discovered was a characteristic of her hospitable nature.

She had been working in her "garden," and proudly exhibited the various green things that were sprouting. The garden consisted of boxes filled with earth that had been brought in from some distant point and carefully screened against rodents and insects. When I learned that not only the earth but the water had to be hauled in I could understand how much those green sprouts meant to Rosa Taylor.

Her little dog came up, and she asked me to stand perfectly still for a minute "till he discovers who you are." Otherwise she wouldn't guarantee that he would not bite, as he had been trained to guard the mine.

This explanation led her to a story that amused her very much. A man came to the property; passed the house without so much as "by your leave" and started picking up samples from the ore dump. The dog rushed out and nipped the man's leg. He yelled to her to put the dog in the house where it wouldn't be biting people. She answered that it was the business of a watch dog to bite unknown and uninvited people who prowled around high grade ore dumps. The man left—but not gracefully—with the dog nipping at his heels.

From the Bullfrog mine is still coming that beautiful green-stained quartz

sprinkled with pure gold which was so popular with the jewelry trade in former years. In this part of Nevada where gold ore is really gold ore a self-respecting person would no more think of picking ore from a mine dump without permission than of going into a bank past the teller and pawing around in the cash drawer. Furthermore, the Nevada law is just as specific in the one case as in the other. Either offense is grand larceny regardless of the amount of ore taken.

I am merely passing this along for the information of those not familiar with the code in high grade ore districts. The average mine owner or operator is reasonable and friendly, and if approached in a frank and courteous manner will gladly show the visitor every consideration, including a small specimen of pay ore if he has the authority to do so. It is only those who ignore the common rules of courtesy who fare badly.

The rock retaining wall around the house where Mrs. Taylor has part of her garden is made up of pretty desert stones, including blocks of massive amethyst. It came from claims owned by her and Mr. Taylor. It was the same deposit Ed Giles had told me about.

She invited me into the house and showed me her fine collection of minerals and ores including several very beautiful clusters of amethysts. She told me how to reach the deposit.

The directions were simple: "go back down the road to the old railroad bed, turn right and continue past the white stakes to the hill where there are three dumps, one above the other. The amethyst is scattered all over the hill, and we do not object to Desert Magazine readers collecting speci-

mens as long as they respect the private property of the Bullfrog mine."

I followed Mrs. Taylor's directions and was soon climbing the steep hill toward the first dump. I saw considerable quartz in seams, but no amethyst, so concluded it must be higher up. The second dump did not appear as promising as the first, so I began climbing still higher, wondering if these Nevada folks had been kidding me.

On the third dump I sat down to get my wind. There was a large quartz outcropping on the left bank of the cut, but still no amethyst. Then I remembered that that gem along with rose quartz, fades in the desert sun. So I decided to break into the seam. The first blow of my prospector's pick produced massive amethyst quartz, faded on the surface for the first quarter inch, but nicely colored below that.

And that was the answer. Pecking away with my hammer I soon uncovered considerable amethyst quartz and a couple of pockets of small crystals.

With this added knowledge I returned down the hill to a block of rhyolite with a seam of quartz crystals exposed. I turned it on edge and broke it open along the seam, exposing a lovely nest of crystal amethysts in the middle, surrounded by "bleached amethyst" on the exposed edges.

After that, everywhere I turned were little quartz seams which were potential producers of amethyst. It was simply a matter of time and elbow grease to get some really nice specimens. I needed a small bar to pry up large stones and a gad to split them, but without these tools I did very well with my light pick.

It did not take long to discover that there is plenty of interesting material for



Two of the few surviving buildings in the old mining camp of Rhyolite.



Ametethyst crystals exposed to the sun have faded, but a prospector's pick will reveal the lavender-tinted gems below the surface.



Mrs. Rosa Taylor with a fine specimen of amethyst taken from the claims owned by her and Mr. Taylor.

collectors who are willing to work for their specimens, and that the best and most highly crystallized pieces are not in the mine but out on the surface among the thousands of rhyolite boulders that cover the hillside.

As is usually the case, the time I had allowed for this gem hunt was all too short. An hour produced some very nice specimens but I could have spent a week here without a dull moment.

The amethyst crystals are just one of

many interesting things in this highly mineralized region, and it would be pleasant to go here even if there were no specimens, just to get acquainted with the fine Nevadans who are found in this last frontier area of United States.



Prehistoric Masonry in New Mexico

Who can identify this picture?

AUGUST, 1942

PRIZE CONTEST ANNOUNCEMENT . . .

Somewhere in New Mexico an ancient race of men left this fine example of prehistoric masonry for the scientists and travelers of 1942 to puzzle over. It has been partially restored by one of the federal agencies, but much of the stone work remains exactly as the aborigines built it.

Is it a religious shrine, a burial pit, a fire vault or a storage bin? Archaeologists have given much study to these questions. And perhaps no one knows the correct answer. But many interesting facts about this place are known, and *Desert Magazine* would like to present as much of this information as can be condensed in 500 words.

In order to obtain as complete data as possible, a cash award of \$5.00 will go to the reader who sends in the most informative 500-word article about this piece of masonry. The manuscript should give the location, accessibility by highway or other means, and as much historical and other data as is available.

Entries should be mailed to Landmark Contest, *Desert Magazine*, El Centro, California, and must reach the magazine not later than August 20 to qualify for the prize. The winning story will be published in our October issue. Members of the magazine staff will be the judges.

To one person the desert is drab and barren. But to others—those who have retained the imagination of their childhood days—the mesas and canyons and mountains of the arid regions are vivid with life and interest. Ethel Ulman sees the Mojave desert inhabited with a strange and fascinating tribe of people—the Tree People of the Joshua forest. Being an artist she has found it possible to sketch the fanciful personalities of the Joshua clan so that all may see them through her eyes.

Tree People of Joshua Forest

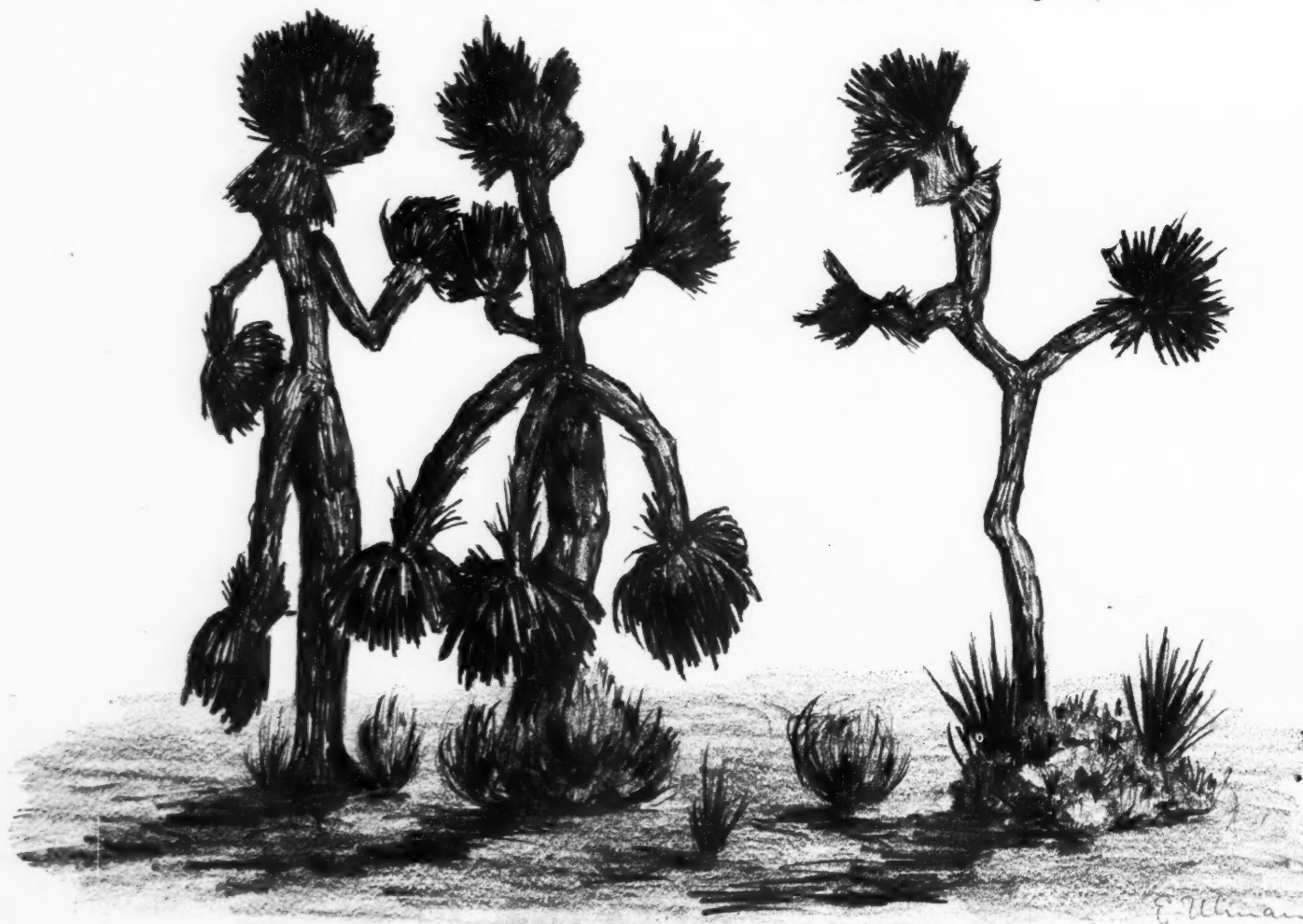
By CARLISLE ELLIS

"ONE morning at daybreak, on a train carrying me from California, I idly raised the Pullman blind for a glimpse of the landscape. We were crossing the Mojave desert and to my astonishment it was inhabited by an animated company of the strangest people I had ever seen.

"They were a fascinating but rather abandoned lot—dancing,



Ethel Ulman at work among the Joshua trees.



Tree People of the Joshua forest.

posing and waving their arms in the wildest way. I knew them, of course, for a new kind of tree people, and with all my heart I wanted to get off the train and join them."

And that is Ethel Ulman's story of her introduction to the Joshua trees of the desert.

Tree people were not new to her. "As far back as I can remember," she says, "trees had clearly defined personalities for me. All through childhood I lived in and among them, gave them names and held long conversations with them. Some of them I never forgot and when, years later, I went back to visit the old home I slipped away as soon as I could to make calls on old tree friends. I had found that people changed, but the trees had not. It all came back to me as if there had been no passage of time. My trees seemed to mean more to me than the persons I met, and I was comforted.

"Soon after that I came to California and in Carmel fell in love with a group of Monterey pines seen from my window. Grey moss draped their expressive limbs and this helped to create a company of charming tree people. As we grew better acquainted I found them doing the most amazing things and growing more and more human.

"I had had some art training and the temptation was irresistible. I made some playful sketches of them and this led to a series of stories for children to accompany the drawings. They had a ready acceptance and this led to the work I am doing now, though there was a long interval given to mural painting and the production of Persian screens."

Following that first morning glimpse of the Joshuas it was several years before Mrs. Ulman returned to the West but through much globe-trotting that memory never faded, and as soon as possible she came to the desert.

"The trees were just as I hoped—fairly saturated with per-

sonality and of infinite variety. Of course I began furiously sketching, and nothing in a long career of drawing and painting has been so much fun.

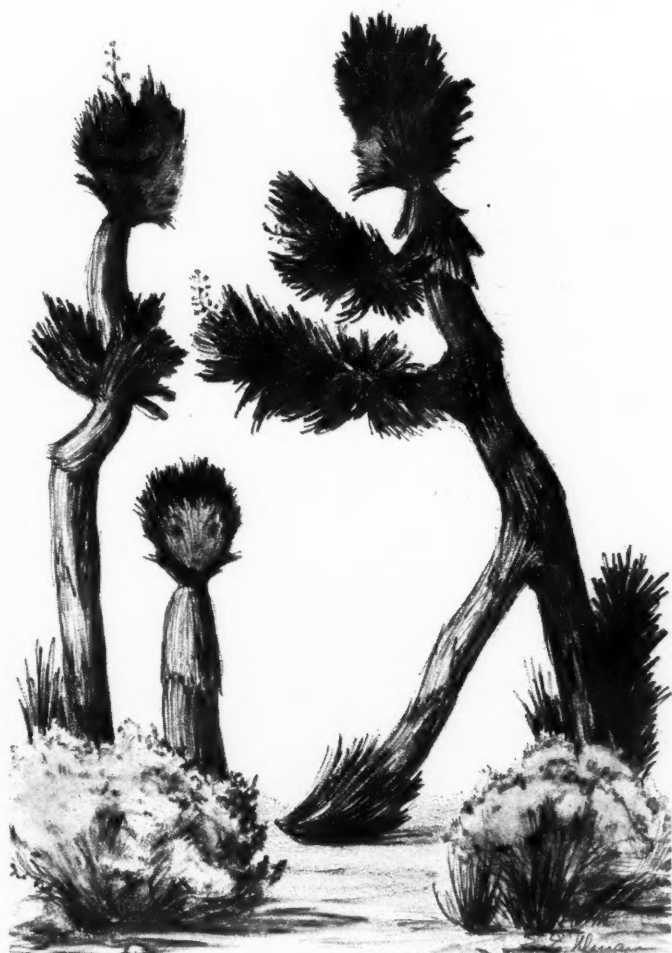
"That first batch of studies went to New York and was given a one-man show at Rockefeller Center. The drawings amused people, I suppose because I was so care-free and indifferent to the strict canons of academic art when I did them. Anyway, the show was a success and this was repeated later at the Stendahl Galleries in Los Angeles. Now I find them in considerable demand in other places and so I can come to the desert almost as often as I like."

Mrs. Ulman has another home in Pasadena and there she is busy with other types of art work. She has mastered the methods of the Persian decorative painters and adopted with noteworthy success their oddly stylized subjects. She has also won acclaim as a painter using native flower designs. She studied art in Paris and also at the William M. Chase school and the Art Students' League in New York.

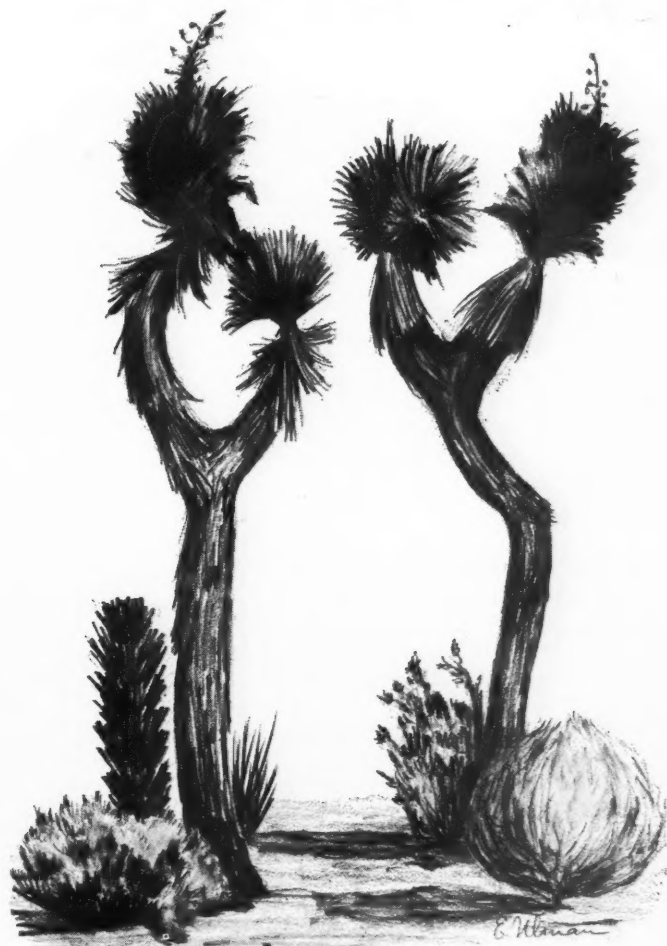
But no amount of academic training has been able to rob her of that free play of the imagination which gives her tree drawings their uniqueness. Here is an untrammelled talent. The same freedom is shown in another series that she calls Rock Gods. These were made from nature along the California coast. The drawings bring the rocky cliffs to life in arresting fashion and they aroused another of Mrs. Ulman's talents—sculpture. She modelled figures of her Rock Gods, a number of which now stand in the gardens of her friends in Carmel.

Trees, however, are still her passion, and of them all the Joshua tree comes first.

"They look so charged with human emotions," she explained one day, "that I can quite believe the old Indian legends about their holding mystic tree ceremonials at a certain stage of the harvest moon. Why not? I shall always see them



"It's for your own good."



"How very amusing."



Mrs. Uppercrust and the kiddies.

dancing and play-acting at pale dawn, as I did from that speeding railroad train many years ago."

On her frequent trips to the desert Mrs. Ulman usually stays at the Casa del Adobe in Palmdale, in the heart of the Joshua tree region.

She finds in the Joshua trees the personification of all kinds of people. There are fairies and witches, but there are also everyday folks like you and me. There is the haughty dame of Fifth Avenue society, the back-fence gossip, the old codger who tells stories to everyone who will listen, the jitterbug of the dance hall and the politician with the gift of gab. They are all in the Joshua forest, and the imaginative mind of Ethel Ulman plus a few deft strokes of the crayon brings them to life in caricatures that are always vivid with personality.

ANTELOPE INCREASE IN NEW MEXICO . . .

Motorists traveling New Mexico highways have a choice of more than a half-dozen main routes from which they may observe from the roadside that fleetest of all North American animals—the antelope, according to the New Mexico state tourist bureau.

The restoration of antelope in New Mexico is one of the sagas of western game conservation. From 1,700 head counted in 1916, the present population of this swift-footed big-game animal has risen to 25,000 head.

The antelope is credited with remarkable speed, but most authorities agree that the 60- and 70-miles-per-hour speeds are over estimates. Top speed for the animals is closer to 45 miles per hour, at which they can travel for a mile or two, and much farther at a cruising speed of about 35 miles an hour.

The best routes on which antelope may be seen in New Mex-

About the Souths

For the information of many hundreds of new readers who do not have access to back files of *Desert Magazine*, here is a brief sketch of the Souths, and the background of their life on a lonely desert mountain.

Ten years ago, at a time when the Great Depression was at its lowest ebb and banks were closing their doors in distress, Marshal and Tanya South, both writers, decided that they had had enough of the "blessings" of civilization.

They loaded their meager belongings in a jalopy and headed toward the desert wilderness in quest of a place where they could build a new home and live natural lives secure from the ballyhoo and the uncertainties of man-made laws and institutions.

Their trail ended at the base of Ghost mountain on the western rim of the Southern California desert. They climbed to the little plateau at the top of the mountain, slept the first night beneath a tarpaulin surrounded by junipers and boulders. It was many miles to the nearest water, but desert Indians once lived off this barren land, and since its aridity assured the isolation they were seeking, they began building.

Water for the first adobe bricks had to be packed on their backs up the steep trail. But they were free and independent—and happy. They worked from sunup until dark, long hours of hard labor, but it brought them added health and a serene philosophy of life.

Since that adobe home was started—they called it Yaquitepec—three children have been born, Rider, Rudyard and Victoria. Tanya is teaching them from books. Marshal is teaching them from Nature.

They live partly off of the land—a tiny garden watered from the cisterns filled with rainwater drained from the roof of the cottage, mescal, chia and other seeds and shrubs of the desert. Once a month Marshal visits a distant town for such essentials as they can buy with the returns from their writing.

For them, their experiment in primitive living has been a glorious success and they have no desire ever to return to the world where humans fight each other for food and shelter and power and gold.

Every day is a new adventure at Yaquitepec, and Marshal South's articles which have been appearing in *Desert Magazine* since February, 1940, give a vivid cross-section of their daily lives, and a fine insight into the philosophy of their way of living.

ico include U. S. Highway 70 between Clovis and Roswell, and again west of Roswell; U. S. Highway 85 south of Raton; U. S. Highway 66, west of Santa Rosa; U. S. Highway 285, near Abiqui, and southward between Vaughn and Roswell.

In western and southwestern New Mexico, the best routes include U. S. Highways 70-80, between Deming and Lordsburg, and U. S. Highway 60, west of Magdalena. The Gila country in this same area also provides a number of secondary routes in the vicinity of Beaverhead and Black Springs where antelope herds thrive.



Paul Wilhelm (left) and Marshal South at Thousand Palm oasis. Photo by Florence Silver taken just before Marshal started the 120-mile trek to Ghost mountain with Rhett and Scarlett.

The Marshal South clan at Yaquitepec is growing. After packing hundreds of tons of water, building materials and other essentials up the steep Ghost mountain trail during the past 10 years, the Souths have acquired two burros. The arrival of the animals was a big event for the youngsters at Yaquitepec. And if you are wondering where and why and how Marshal obtained the beasts, here is the story.

Desert Refuge

By MARSHAL SOUTH

WHEN, some time ago, Tanya and I decided that the increasing family needs called for an improved transportation system up the trail of Ghost mountain we turned naturally to the Desert Magazine to solve our problem. Somewhere, we felt sure, among the vast army of desert dwellers and friends, we could find the owner of a couple of good burros who would be willing to part with them.

And we were not disappointed. You can get most everything from the desert if you ask for it in the right quarter. To our modest advertisement came not one but many replies. But the one that intrigued us most was from our fellow wilderness dweller—whom we knew well but had never met—Paul Wilhelm of Thousand Palms oasis. Paul wrote that he had a couple of gentle burros he would be glad for us to have. The matter was settled.

And settled too, almost as speedily, was the problem of getting them to Yaquitepec. Randall Henderson of Desert Magazine offered to drive to Ghost mountain and transport me to Thousand Palms oasis in his car. "You can then," wrote Randall, cheerfully, "return with the burros at your own sweet leisure."

Thus it was arranged. And thus it came about that on a late Sunday afternoon, when the wind was snoring through the lofty palm summits of Paul's little desert Eden, I headed through the low mesquites of the wash with two new—though somewhat reluctant—friends in tow. Rhett and Scarlett. Dust

swirls scudded underfoot. In a bright flash of feathers a scarlet tanager winged through the bushes. The grim, jagged mountains beyond the oasis stood sharp against the sky like the painted backdrop of a stage scene. We had over 120 miles of trail ahead of us. There was a spice of adventure in the air. It was good to be afoot—and footloose. I found myself adapting and humming half forgotten fragments of an old ballad of the Pony Express . . . "Shake along, little burros; shake along . . . A hundred and twenty miles to go . . . Remember that the mail must go through."

I had brought along a couple of blankets for the trip. And these with a gay orange colored bag—once the container of a hundred pounds of dog biscuit and now pressed into service as a packsack were roped upon Rhett. He was a wise old campaigner of the trails and sniffed a bit contemptuously at the lightness of his load. Scarlett I had planned to ride on occasion. She was a good saddle burro, Paul said. Her ears were longer than Rhett's and her expression a trifle more sophisticated.

We left the fringe of mesquites behind, turning from the trail to make a short cut across the bleak wastelands along the flanks of the desolate hills. The wind tore down and scurried the dust; the far, grim summits of the Santa Rosas towered against the sky. Ahead, the town of Indio was a distant, dim blue cloud. I climbed aboard Scarlett presently; having decided that by now she should have gotten over the first pangs of home-parting. With Rhett in tow—for I dared not turn him loose so close to his old home—we jogged on.

We reached the highway in the lowering dusk. Trucks thundered past and cars came charging at us glaring eyed. A concrete highway is no place for peace loving burros. But we could not help it. Civilization has robbed life of many another bit of peace and freedom. We hugged the far shoulder of the road and made the best of it.

We spent the night at John Hilton's—after being first halted in the dim darkness of a lone stretch of road by a patrol car of Uncle Sam's immigration service. But, as we knew most of the local force, the inspectors waved us cheerily on our way. But there was drama in the encounter. Somehow it made us feel like a "Contrabandista" guiding his pack train of stealthy, heavy laden mules along mysterious trails. We regretted bitterly that we had no black *mustachios*, or a sinister dagger, or a sable, scarlet-lined cloak. We determined to have at least the cloak next time.

Perhaps to say that we spent the night at John Hilton's is

scarcely the truth. There was not much of it to spend. John had arranged in advance to leave a light burning. But by the time I had unpacked and hitched the burros to a telegraph pole and tiptoed into the bedroom the morning star and a worn moon were hanging high in the east against a glow of dawn. I suppose I slept all of 15 minutes before John summoned me to breakfast.

John Hilton needs no introduction to Desert Magazine readers, and it was hard to get away upon the trail again. By art and subtlety he and his wife Eunice convinced me—no hard task—that I must stay to lunch also. There is so much to see at John's—his cactus gardens, his gorgeous paintings, his fascinating collections of desert gems and minerals. I finally got away about two-thirty in the afternoon, bearing, among a varied assortment of other souvenirs sent to the family at Yaquitepec, a special treasure. A priceless bottle of genuine Mexican hot sauce which John had brought from Sonora. It was positively guaranteed to possess a potency capable of burning a hole through a copper pot in five seconds flat. And the bottle would, John assured confidently, last me "almost indefinitely"—one had to use such a minute quantity in order to transform one's "innards" into a raging conflagration.

It really *was* a good sauce. Compounded, I believe from sulphuric acid, *chillis pepinos*, T.N.T. and dynamite. I blush to say that I consumed most of the bottle that night for supper. But thoughtfully saved a small sample so that Tanya and the children could judge the flavor.

From John Hilton's the burros and I trailed contentedly on. A grand day of desert sunshine with distant mountains wire-edged against the turquoise sky. Scarlett and Rhett were resigned now. They munched at bushes and weed patches with an air of stoic endurance. Most of the time I walked. We all enjoyed ourselves better that way. Foot-pace burro travel may be slow. But one gains by it something which cannot even be sensed when one goes charging across country in a soulless gas-burning machine.

Inspector Smith and his brother officer whirled their patrol car out of the darkness again that night and stopped to inquire after the good health of the pilgrimage. They rendered the cheerful information that they hadn't seen many sidewinders on the highway at night so far this year. Which was consoling—for we had been thinking about sidewinders, for whom we have a great respect. After the big car had purred away into the mystery of the night we went on beneath the starglow in a cheery frame of mind. Not alone because of the reported scarcity of sidewinders. It always gives one a warm feeling to rub shoulders with Efficiency, especially in wartime. And this was the second time on the trek that we had evidence that the border patrol is very much on the job.

We finally camped for the night at Coolidge Springs, in a ghostly dark with the wind sighing through the tall lines of shadowy athel trees.

I watered and packed the burros and we were off on the road again before anyone was astir. "DANGER. ARTILLERY FIRING," said a big red-lettered sign in the wash, marking the edge of a military reserve. But there was no evidence of artillery nor any sound of firing. Only, in the distance, the grim waterline of the old vanished sea, whose waves had beaten against these now dry scorched desert buttes far back in the mists of Time, stretched like a black, ruled line. Somehow there was in that old bleached sea-stain something that carried a note of ironic laughter regarding Man and his "works" . . . his wars and his achievements. Dust! Yesterday the ocean. Today the puny voices of the guns. Tomorrow the old sea-line and the very mountains upon which it is graved will be gone.

A glorious desert morning, with the stretch of the Salton sea glinting like the blue steel blade of a giant's sword beyond the stretch of the sandy desert to our left. Early in the forenoon Rhett and Scarlett discovered a luscious pile of dusty hay beside the roadway. Evidently a hay truck had come to grief. We

paused right there. And while I loafed in the warm sunlight they industriously made a clean sweep of the precious provender. A burro's life, I reflected, as I munched one of my own dry sandwiches, has certain advantages.

And so, through desert silence and sunshine and the shimmer of desert mirage, the burro Pony Express moved on, slowly but surely eating up the miles. A hundred and twenty miles is nothing to an automobile. But to the leisurely jog of burro travel it is a respectable distance. As we ambled along, however, across thirsty stretches where mesquite-grown dunes shimmered in the sunglare, or through the wind whispered star glow of night, we remembered always that ". . . the mail must go through."

And through it went. Even a little ahead of calculated time. Three more night camps—the last one only a couple of miles from the rugged base of Ghost mountain—then on a bright morning, as the sun lifted well above the ridges, a couple of weary burros plodded the last stretch up the precipitous Yaquitepec trail. We were met by three excited youngsters who, while dancing for joy over daddy's safe return, still managed to find time to shower their new four-footed friends with an amazing variety of edible tid-bits.

It was a joyful homecoming—with the savory aroma of breakfast and the cheerful clatter of dishes, as Tanya mixed her greetings with the bustle of setting out a meal. The mail had gone through. Scarlett and Rhett had come to their new home. The trip was over.

Yes, over. But a wealth of memories would long endure. High lights and shadows; mirth and tribulation. For not in a space 10 times as great as this could one compass all the incidents. But they are safe in memory's album for future scanning. Somehow, as I watered and fed Rhett and Scarlett, I could not help recalling one of them—the meeting with another artist friend. Mr. Crocker, whose home is near Julian, California. With his daughter he had come whirring out of the mirage-blinking distance as we had been plodding along with the Superstition mountains on the horizon. We had not seen each other for a long time and, when sight of our cavalcade had jerked his car to an amazed halt, he had dipped back into his own memory of past days.

"You may not know it," he said a bit wistfully, "but once I, myself, ran a pack train. How well I remember . . . And how they would scatter . . . And run under trees . . . And try to rub their packs off . . . And . . ." He sighed. And we looked at him in a new fellowship. For, with the manners and bearing of Boston's most exclusive set, he is the last person in the world whom you would ever remotely suspect of having run a pack train. "Yes," he said regretfully ". . . those were the days . . . But cuss! . . . Ah, not even yet have I succeeded in breaking myself of the habit."

And when he and his daughter had whirled on, leaving the burro express the richer by a welcome gift of grapefruit and dates, which Rhett, Scarlett and I ate, share and share alike, I had chuckled a little.

I chuckled again now as I turned my two faithful trail companions loose to a long, well-earned rest. ". . . But cuss! . . ." Yes, he had in truth run a pack train—there can be no secrets among fellow members of the noble fraternity of packmasters.

But it is a good world, nevertheless. And how else, anyway, would one run a pack train—or a couple of burros either?

PERFECTION

*Perfection is not marked by outward sign,
It is so different for each one of us.
Each has his own accepted strange design
For what he deems perfection to be won.
It is the most elastic term we know,
As different as the dreams we dreamers find;
One sees perfection watching violets grow,
One sees it as some figment of the mind.*

—Tanya South

Established as a public park reserve by presidential order in 1937, the Capitol Reef national monument, deep in the heart of the southern Utah desert wilderness, is one of the newest and least known of Uncle Sam's playgrounds. Prehistoric tribesmen lived here years ago, but few white men ever have explored the remote canyons in the 57 square miles of desert terrain now reserved for public use. This is one of the places you will want to go when post-war vacations are in order.

Playground in the Utah Wilderness

By CHARLES KELLY

SIXTEEN years ago Utah newspapers carried the story of a remarkable archaeological find in Wayne county, Utah. It was said that in sandstone caves near Torrey, Ephraim Pectol had found caches of prehistoric Indian artifacts, among which were three large painted buffalo hide shields. Nothing similar had ever been found within the limits of Utah.

Frank Beckwith and I had been doing archaeological research whenever we could steal time from our work, and were naturally interested in this reported find, although somewhat skeptical, since we had followed many disappointing leads. To satisfy our curiosity we drove to Wayne county to look at Mr. Pectol's collection and personally examine the unique shields. That was in 1927 when a trip by car into that isolated section was an adventure.

We found Torrey a typical desert village located at the base of highly eroded cliffs known locally as the "fluted wall." Sixty years ago in his book *Geology of the High Plateaus of Utah*, C. E. Dutton gave this description of them: "The colors are such as no pigments can portray. They are deep, rich and variegated, and so luminous are they that light seems to flow or shine out of the rock rather than to be reflected from it."

Many of the buildings in Torrey are constructed of that same rock. The road was deep with red dust and the whole town seemed to have been generously sprinkled with red powder. Mr. Pectol, we discovered, was bishop of the little Mormon settlement and proprietor of its one mercantile establishment. His place of business was an old fashioned country store carrying everything from horseshoes and hairpins to coal oil and calico, where the cracker-barrel congress still met each afternoon to settle international affairs and discuss the price of beef on the hoof.



Utah State Highway 24 passes through narrow Capitol gorge, five miles long, in Capitol Reef national monument.



Square miles of ripple-marked flagstones cover the desert between Torrey and Fruita in Capitol Reef national monument.

When we introduced ourselves Mr. Pectol left his customers to show us his collection of Indian relics displayed on a sort of mezzanine at the back of his store. We spent two hours examining pottery, baskets, beads, arrow points, cradle boards and hundreds of artifacts gathered in Wayne county over a period of many years. We saw and handled the three large shields of buffalo hide, satisfying ourselves they were genuine and very ancient. Their presence in Utah never has been scientifically accounted for.

Pectol opened his store in Torrey in 1910, but was not satisfied with being merely a merchant. Fascinated by the hundreds of square miles of cliffs, canyons and badlands in Wayne county, he spent much of his time each summer exploring its unknown corners. Amazed by the great variety of archaeological, geological and scenic marvels it contained he began calling it Wayne Wonderland, a name now firmly attached to the region. Largely because of reports he brought back from these expeditions many famous geologists and archaeologists have visited Wayne county and their findings have added much to scientific knowledge.

As he explored narrow hidden canyons where no white man had ever set foot, Pectol became obsessed with the idea that his playground should be set aside as a national park or monument. Both Bryce and Zion recently had been made national parks and he believed this Wonderland contained a greater variety of attractions than either of those areas, which now have



Several million years separate the prone petrified tree and the living juniper, in the Capitol Reef area. Many such logs are found in the Chinle formation.

become world famous. But it was far off main roads and practically unknown except to local ranchers. So, in order to publicize the area, he organized what he called a Scenic club, composed of local people. This was later expanded by Mr. Pectol and his brother-in-law, Joseph Hickman, to include several southern Utah counties, under the title of Civic Clubs of Southern Utah, a live organization which continues to advertise the state's scenic resources.

In 1925 Joseph Hickman was elected to the state legislature, where he introduced a bill to set aside 40 acres surrounding Hickman natural bridge as a state park. This was passed and on July 20, 1926, the park was officially dedicated by Governor George Dern. Four days later Hickman was drowned in beautiful Fish lake. No appropriations were made for the park's development, and it remained almost unknown even to residents of the state.

Ephraim Pectol was elected to the legislature in 1932, and one of his first acts was to introduce a memorial to congress ask-

ing that Wayne Wonderland be created a national monument. The memorial was sent to Washington but seemed to have become lost in the files. During his second term another memorial was sent to congress. In the meantime Governor Dern had been appointed secretary of war. He was familiar with the beauties of the Wonderland and took the matter under his wing, with the result that in 1937, 57 square miles in the heart of the Wonderland was set aside as Capitol Reef national monument. Small appropriations were made from time to time; one small admin-

istrative building was erected, a bridge built and some road improvements made. But war clouds stopped any major appropriations; no custodian has been appointed and no development work, except some road construction, has been done. However, in spite of the fact that Capitol Reef national monument remains practically unknown, it is visited annually by an increasing number of persons who enjoy traveling the unbeaten trails.

State Highway 24 leaves U. S. Highway 89 at Sigurd, just north of Richfield, and runs east through Wayne county. Crossing a high divide south of Fish Lake plateau it continues on to Loa, county seat, at 43 miles. At 51 miles it passes through Bicknell, where the first exposure of red rock appears. Nearing Torrey, 60 miles, the road parallels the "Fluted Wall," and this formation upon which is piled other highly colored strata, continues to Fruita, heart of the monument, at 72 miles.

Fruita, where administration buildings and accommodations will some day be

built, is merely a wide place in the canyon of Fremont river, originally called Dirty Devil by Major Powell when he discovered its mouth in 1869 during his voyage down the Colorado. In this picturesque little valley-eight families live on 185 acres of irrigated land planted with peach, apricot and other fruit trees. Sheer walls of the canyon, protecting the fruit from frost, are composed of red Wingate and cream colored Navajo sandstone, the latter eroded into rounded masses, one of which resembles the dome of our national capitol, hence the name.

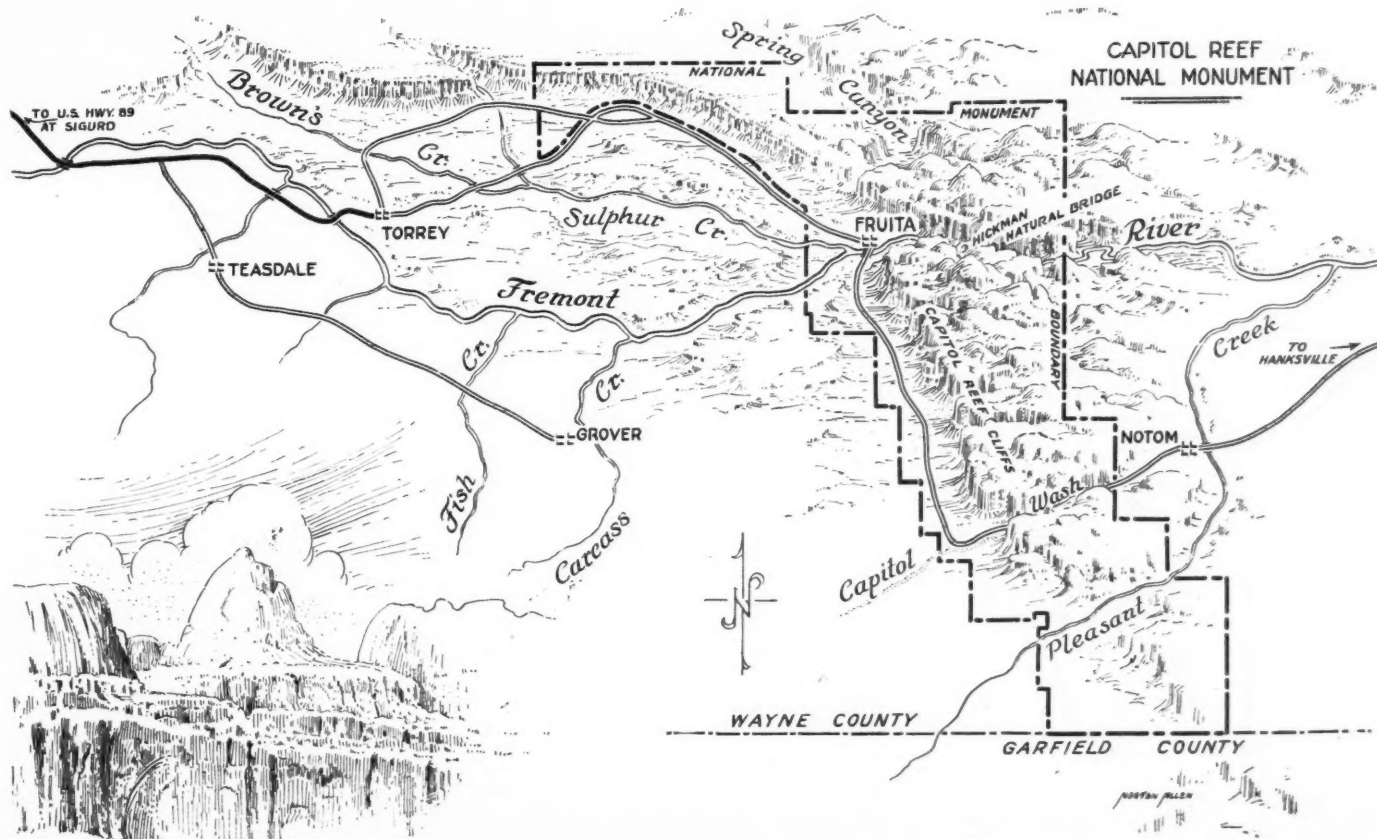
The great uplift, which at Fruita rises 2,000 feet, is known as Capitol Reef. Through this great mass of rock the Fremont river has cut a narrow canyon 13 miles long. Paralleling it are other narrow canyons cut by the action of water, but dry during most of the year. One of these, through which the road passes, is Capitol Gorge, five miles long, and so narrow that in many places two cars cannot pass. At the narrowest point one can almost touch the walls on either side from the windows of a car. Still another canyon, Grand Wash, near Fruita, is too narrow to permit passage of a car, with walls so sheer that sunlight penetrates to the bottom only a few minutes each day.

A mile and a half down the river from Fruita is Hickman natural bridge, a symmetrical span in a picturesque setting, recently pictured in Desert Magazine's landmark contest. Probably fewer people have seen this natural wonder than have visited the better known but inaccessible Rainbow arch.



Hundreds of "Fremont culture" petroglyphs decorate the canyon walls surrounding the little valley of Fruita.

State Highway 24 is hard-surfaced to Fruita are 12 miles of wild desert road, passing through a red desert of beautiful-





Ephraim Pectol, father of Capitol Reef national monument, with one of the buffalo-hide shields he discovered in a cave near his home at Torrey, Utah. Photo by Frank Beckwith.

ly ripple-marked flagstones, part of the Moenkopi formation. Above this appears the Chinle shale, softly weathered in deep red and pale green tones, in which is found, at many places, trunks of great petrified trees.

The monument area extends from just below Torrey through Capitol Gorge to Pleasant creek. From there the road continues on to Gainesville over a beautifully colored painted desert. At the latter settlement occur great uplifts of Mancos shale, eroded into symmetrical serrated ridges. Seen at sundown, with purple light filling the depressions, this formation is a color photographer's dream with its background of snowcapped Henry mountain peaks. Again the formation changes to thinly bedded, highly colored, fantastically eroded Morrison shale as the road nears Hanksville on the Dirty Devil river 48 miles east of Fruita. From Hanksville a road runs 65 miles to Greenriver, Utah,

through the Robbers' Roost country made famous by the outlaw Butch Cassidy.

While Capitol Reef national monument contains some of the finest scenery in Wayne county, it comprises only a small part of Wayne Wonderland. To the west Fish lake, source of Fremont river and one of the famous fishing waters of the West, lies on its high plateau. To the northwest is Thousand Lake mountain, and to the south is Boulder mountain, on whose flat top repose another thousand hidden lakes full of rainbow trout, and what is said to be the highest pine forest in the world. From the top of this mountain one obtains what I think is one of the grandest views anywhere in the West, comprising all of the Wonderland area, all seven peaks of the little known Henry mountains, and across the Colorado river, the beautiful LaSal range. To the southeast can be seen the tips of monuments in Monument valley, more than 100 miles distant.

In the middle foreground lies an immense circular valley. Completely surrounding it are the Circle Cliffs, through which there is but one narrow and dangerous passage. The whole colorful panorama is a land almost devoid of water, on many square miles of which no white man has ever set foot, and into which it is not safe to enter without an experienced guide. In that bewildering maze, known only to a few, are sections of petrified trees measuring 13 feet in diameter, acres of dinosaur bones, small mountains of huge selenite crystals, and many other marvels yet to be discovered.

In prehistoric times this almost waterless, broken country of cliffs, canyons and high plateaus, was inhabited by a race of people designated by scientists as the "Fremont culture," differing in several respects from the better known San Juan and Mesa Verde peoples. The little valley at Fruita seems to have been the center of their orbit; smooth rock walls surrounding it are covered with representations of men in elaborate costumes wearing heavy, ornate necklaces. Many caves and cliff dwellings inhabited by them have been excavated, but many more remain to be discovered in the narrow, hidden canyons bisecting Capitol Reef.

First to see this Wonderland were said to be four men sent on an exploring expedition by Brigham Young in 1862. They went as far east as Hanksville, but made no settlement at that time. In 1875 the settlement of Fremont was located north of the monument area. In 1880 Ebenezer Hanks founded Hanksville, 48 miles east. At about the same time a homestead was located at Fruita and shortly afterward several families moved in. This was during the days when Mormons were being arrested for polygamy, and "Cohab" canyon, hidden in the rocks above Fruita, was a favorite hideout for men wanted by the law for the offense of "cohabitation." Since this section was 72 miles from a railroad, and roads until recent years were little more than desert trails, ranchers in the area still live under pioneer conditions. There is not an incorporated town in Wayne county.

Some day, when war clouds have rolled away, Capitol Reef national monument, the land of shining rocks, will be developed for tourist enjoyment; trails will be built to outstanding scenic attractions and comfortable accommodations provided. But hundreds of square miles of Wayne Wonderland will always remain a land of mystery, luring into its unknown recesses only a handful of adventurous souls who like to tread unbeaten paths. And that, I think, is the way Ephraim Pectol, father of the monument, would want it.

HERE AND THERE... on the Desert

ARIZONA

Cut in Indian Funds Seen . . .

WINDOW ROCK—Possibility that the war may be a long one and that it would undoubtedly lead to curtailed Indian funds was told by John Collier, Indian commissioner, who addressed members of Navajo Tribal council. Collier requested continued cooperation by members of the Indian nation, praising them for their past attitude of helpfulness.

New Bison for Houserock . . .

FLAGSTAFF—Augmenting the Houserock valley bison herd, Arizona has introduced 12 more bulls and yearling calves, shipped from Wichita mountain game refuge near Lawton, Okla. Another bull, a three-year-old, was sent to Tovrea memorial zoo near Phoenix. State-owned herd at Houserock valley has attracted many tourists.

Nevills' Expedition Starts . . .

GRAND CANYON—Two of the youngest persons ever to challenge swift waters of the Grand Canyon were among eight persons in Norman D. Nevills' fourth expedition down the Colorado scheduled to start July 15 at Lee's Ferry. The boys are Bruce Wilson, 13, Burlingame, California, and Garth Marston, 16, San Francisco.

Thirst Kills Financier . . .

KINGMAN—P. B. Cheney, 50, Boston financier and one-time Santa Fe director, died of thirst and exposure on the Alamo Crossing road south of Yucca late in May. Mr. Cheney, who annually visited the arid desert strip fringing the Colorado river in Arizona, was enroute to Prescott from Yucca via Alamo Crossing and Congress Junction. His car had stalled in sand and when he died he was back-tracking to Yucca for assistance.

Formal Opening for Zoo . . .

PHOENIX—E. A. Tovrea Memorial Zoo had its formal opening June 21. The zoo, planned by Tovrea, an Arizona meat packer, will eventually contain one pair each of all of Arizona's wildlife.

Rabbits Destroy Cotton . . .

CASA GRANDE—Rabbits, both jacks and cottontails, are making depredations into cotton crops in this area as a result of recent dry weather. K. K. Henness, county agricultural agent, announces, however, that ample poison for control is available.

Hualapai Missionary Dies . . .

VALENTINE—Ending a 25-year career as missionary to Hualapai Indians of northern Arizona, James Peter Anderson died at Sawtelle Veterans' hospital, Los Angeles, June 3. Remains were interred at Kingman not far from the reservation.

Despite the driest May in Arizona in more than 40 years, runoff on the Salt, Verde and upper Gila rivers has held up.

John P. Hale, former Mesa high school principal and owner of world's most complete collection of branding irons, (Desert Magazine, Sept. '38) died at his home in Mesa, June 23.

In addition to an all-time record commercial pack of 404,000 cases of grapefruit juice, Arizona growers are now supplying between 175,000 and 200,000 cases to the U. S. army.

All canyon-rim drives at Grand Canyon have been suspended by Fred Harvey company. All other services will be available.

C. F. Wilcox, 111 years old, and Arizona's senior pioneer, died June 6 at the Arizona Pioneers home.

Payment of \$15,500 to San Francisco Peaks Boulevard company of Flagstaff for construction of a road up to Fremont and Doyle saddles has been approved by congress.

Mr. and Mrs. Maurice Zook of Flagstaff have sold their interest in the Flagstaff Journal and will now manage Madison, Nebraska, Star-Mail. Mrs. Zook was editor of the Journal for six years.

CALIFORNIA

Hospital Work Starts . . .

PALM SPRINGS—Construction work on ramps and corridors for \$4,000,000 El Mirador army hospital has started. At peak of construction, it is anticipated that 1,000 men will be employed. First 200 patients were expected to arrive late in June. The hospital

100% VIRGIN WOOL HAND-WOVEN TWEEDS

A limited yardage of these beautiful fabrics is still available from our stocks. Hand-woven with painstaking care by our skilled Spanish-American weavers from original designs by Preston McCrossen; distinctive, long-wearing, easy-draping; in weights and patterns for suitings and topcoatings for men and women.

SPECIAL: 13-oz., 56-in width twill weave suiting in mixtures of natural gray with light blue, navy, tan, brown, teal green, natural white or gray. \$6.50 per yard. In writing for swatches please specify color preferred.

McCrosSEN
HAND-WOVEN TEXTILES
SANTA FE NEW MEXICO



Please start your railroad trip on a Tuesday or Wednesday, or Thursday

If you are planning a trip by train, we hope you will try to leave on a week-day, to relieve the week-end burden on our trains. Also you will be more apt to get just the accommodations you want.

In addition, we hope you will consider the advantages of traveling later in the year. Vacation places are less crowded and in this glorious West of ours, many regions are at their best in the fall or winter.

The armed forces have first call on our trains. We know you want it that way. So we will appreciate it if you do everything you can to cooperate with them, and with us.

S·P

The Friendly Southern Pacific

eventually will accommodate 1,500 beds and will be staffed with between 1,200 and 1,500 doctors, nurses and other personnel. Buildings will not be air-conditioned, officials believing that men brought from tropical war zones essentially need desert quiet.

SUBSCRIBE TO Hoofs and Horns

To Keep Abreast of the RODEO GAME and its HAPPENINGS—

Its news about Rodeos and Roundups is the most authoritative of any published in America. Rodeo Association bulletin and Cowboy's Turtle Association news are published monthly.

Those who enjoy poetry of the Old West will revel in the abundance of truly typical poetry that appears in each issue of Hoofs and Horns. You'll like Hoofs and Horns!

Each issue is generously illustrated with pictures of the people and places that are important to the current and past history of the Range country. Don't miss a single copy!

Subscription Rates

1 YEAR \$1.00	2 YEARS \$1.50
3 YEARS \$2.00	5 YEARS \$3.50

MONEY MUST ACCOMPANY THIS ORDER

SEND NAME AND ADDRESS TO

HOOFS and HORNS
P. O. Box 790 Tucson, Arizona

Woman Lost in Canyon . . .

INDIO—Authorities found Miss Elizabeth Messenger, 85, in a canyon off famed Palm Springs canyon, 12 hours after she had wandered from a picnic ground. She was tired, but otherwise uninjured.

Davis Dam Contract Let . . .

WASHINGTON, D. C.—Davis dam and powerhouse on the Colorado river will be built by the Utah Construction company of San Francisco and eight associate firms under terms of a contract approved by Secretary Harold L. Ickes. Clauses permitting sudden termination by the government and for possible delays because of priorities were approved by Ickes. Cost of the project is set at \$18,966,392.

Seek Official Depot . . .

GARNET—Palm Springs resortmen have opened a campaign to make Garnet official depot for the village in place of present station 10 miles west. Construction of clay road from Garnet to Palm Springs is proposed to permit horseback riders and horse-drawn vehicles to meet trains.

Southern council of state chamber of commerce has voted to recommend that the state group assist Coachella valley county water district in securing priority rating for reinforcing steel for completion of Coachella branch, All-American canal.

Otis Art institute students of Los Angeles, working in Ramona bowl, are painting 20-foot by 16-foot mural to cover one entire wall of Ramona Pageant association administration building at Hemet.

High on a mountainside near Two Bunch Palms, Cabot Yerxa is building a new trading post. A well sunk 123 feet has tapped 125 degree water.

During the last week of June, the Inyo Independent, a Chalfant paper, celebrated its seventy-first anniversary of continuous publication.

Best fishing in 10 years is reported in High Sierras lakes at the present time.

Arthur E. Bailey, resident property owner of Palm Springs, has been named city manager replacing John D. Lange, who goes to the federal housing authority. Bailey was hired for a trial period of 5½ months.

NEVADA

Government Controls Land . . .

RENO—Enough land to encompass states of Delaware, Rhode Island, and District of Columbia and a small portion of Texas is held by the federal government in Nevada for various military purposes.

Sign Stops Fire Fighters . . .

LOVELOCK—A. St. Claire's cabin at Lower Rochester burned to the ground, when fire-fighters were restrained by a sign "Dynamite cache" written on a piece of cardboard. Several small explosions occurred in the building but it was said these could have been gasoline cans.

Historic Hotel Reopened . . .

GOLDFIELD—Once again historic Goldfield hotel has been opened to the public, the Gottle brothers of Hollywood having redecorated rooms and modernized plumbing in the building. Throughout the hotel famous figures of Goldfield history have trod since it was first built in 1907 at a cost of \$348,000.

Mountain Sheep Seen . . .

FALLON—Mountain sheep may be inhabiting Kingston canyon, it was revealed when Jack O'Donnell and Everett Reed, miners, disclosed that they had seen one of the rare animals among the Schmidlein cattle in the canyon. Forest Ranger Sevy and others state that the sheep may have been in the canyon for a small band has been inhabiting a part of the Toiyabe range about 200 miles farther south for some years.

Next year's automobile license plates for Nevada will be the same as the 1942 tag, but owners will receive windshield stickers bearing the license number and an individual serial number.

Fire has destroyed the 50-year-old Humboldt county landmark—the old Grayson ranch house at Willow Point.

NEW MEXICO

Tribal Dances Reduced . . .

GALLUP—In a patriotic move to conserve gasoline and rubber, Navajo Indians have acted to discontinue for the duration all powwows and dances except a number of more traditional ceremonies. Medicine dances, including the squaw dance and solemn "yei-be-chai," are to be permitted. Tribal members also acted to approve opening of 12,000 acres of land near Shiprock for oil and gas development.

Zuñi Rites Planned . . .

GRANTS—Zuñi prayer sticks were prepared late in June for ceremonies to be held at full moon. Zuñi Indians hold these devotions in the fields and hills to bring blessings of rain to the tribe and world.



Westcraft
and
Westwood

Write for Information

GEORGE T. HALL

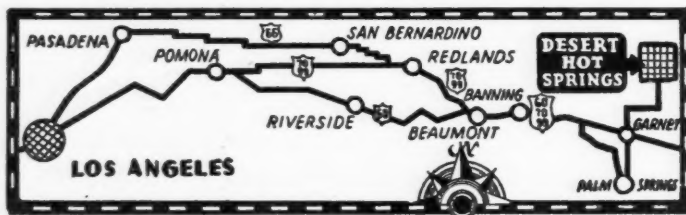
So. Calif. Westcraft Distributor
5614 W. Washington
Los Angeles, California

Now is the time to buy Defense Bonds!

DESERT HOT SPRINGS 10½ MILES NORTHEAST OF PALM SPRINGS

THE LARGEST BEST EQUIPPED NATURAL HOT MINERAL WATER BATH HOUSE ON THE DESERT

is open to the public every day, under scientific management . . .
Ladies' and Men's Departments



RESIDENTIAL LOTS 50x130 FEET PRICED AT \$250.00 UP

Terms: 10% Cash — Balance in 36 Months

See our Mr. Todd or Mr. Duncan on the ground

L. W. COFFEE, Subdivider

257 South Spring Street

Los Angeles, California

A private warm water swimming pool.

Guest cards on request.

To Study Indian Mystics . . .

GALLUP—To learn some of the Indian's magic art, Erwin Sloan of Rochester, New York, will attend the Inter-Tribal Indian ceremonial at Gallup August 12-15. Mr. Sloan is a magician himself.

Navajo Seek Zuni Medicine . . .

FARMINGTON — Navajo tribesmen plagued by a grasshopper invasion have hired a Zuni medicine man to drive the 'hoppers from their 5000-acre Hogback irrigated farms project near Shiprock. "The white man's medicine is too feeble," the Navajo declare.

Crops Forecast Bright . . .

LAS CRUCES—Crop forecasts for New Mexico are bright despite a light May rainfall and only one-fifth of normal planting, reports bureau of agricultural economics. Farm labor is generally inadequate in all counties.

Acoma Indians Need Land . . .

ACOMA PUEBLO—An appeal for additional land to graze sheep so that Acoma Indians may increase the size of their flocks has been made to Secretary Harold Ickes. They made the request in an effort to help members of the tribe who do not have sheep now.

Tires From Reservation . . .

GALLUP—An amazing number of old automobile tires have been contributed to the nation's rubber drive by Navajo Indians as a result of the word passed by T. R. Fleischauer that he would pay one cent a pound for rubber. A few days after the announcement he had more than 1000 pounds of rubber.

The Santa Fe New Mexican, published since 1849, is now established in a new home formally opened June 20.

Twice normal production of "sherling" sheep pelts is needed by the government to supply sheep-skin lined clothing for flyers.

The Santa Fe fiesta this year will be cut from three to two days, and will be held on pre-Labor day weekend, September 5-6.

Total of 128,300 acres of land in northern Taos county has been acquired by Rio Costilla Cooperative association, financed by farm security commission.

New Mexico state fair officials will proceed with plans for the 1942 exhibition despite a federal request for cancellation.

UTAH

Berry Feud Starts . . .

SALT LAKE CITY—Davis and Utah counties are mixing it up over claims of the latter that the best strawberries are grown in the latter section of the state. Davis county officials replied, "Davis county can grow better strawberries 'neath the foundation of the new naval depot at Clearfield than Utah county can grow out in the open."

Coach Placed in Service . . .

ZION NATIONAL PARK—Utah Parks company has inaugurated an antique service with its horse-drawn coach. It will be used for canyon side trips to replace bus service.

Governor Takes a Hand . . .

BRIGHAM CITY — Even Herbert B. Maw, Utah governor, has donned overalls to aid in relieving farm-labor shortage during the annual beet thinning work. He is employed on a field in a Box Elder county farm. Previously he had urged "white-collar" workers to do the same thing.

Exploration Trip Ends . . .

VERNAL—Led by Bus Hatch, veteran river-man, federal park officials, archaeologists and Dr. Frank Setzler, head curator, department anthropology, U. S. museum have completed a 10-day trip through Yampa canyon and Green river gorge. They examined archaeological sites where prehistoric Indians dwelt along the Yampa before the advent of any now known tribes.

The 1942 Ute Stampede will not be held, officials have decided because of a shortage of essential products and the threat of gasoline rationing.

Utah state fair, September 12-19, will be known as the "Utah State Victory Fair."

Henry Hooper Blood, governor of Utah from 1932 to 1940, and a noted public leader, died at his home June 19.

L. T. McKinney, succeeding Henry G. Schmidt as custodian of Arches national monument, has taken over his new post after being transferred from Chaco national monument, New Mexico.

Dr. W. M. Stookey has been appointed regional director for the American Pioneer Trails association. He is a member of the executive committee of Utah Pioneer Trails and Landmarks association.

Fort Douglas army officials have revived the official post paper, the Union Vedette, not published since post Civil war days.

GALLUP NEW MEXICO

"THE INDIAN CAPITAL"

Invites You to
the 21st

Inter - Tribal Indian Ceremonial

AUGUST
12 - 13 - 14 - 15
1942



SAN JUAN DANCERS

YOU HAVE read about the famous Inter-Tribal Indian Ceremonial in The Readers Digest, Life, Vogue, Esquire, the National Geographic Magazine. You have glimpsed it in a Fitzpatrick Travel Talk or in a Burton Holmes Travelogue. Or maybe you heard it broadcast nationally by Columbia or NBC. Make this the year to answer your urge to see it.

Through four nights and three days see seven thousand real American Indians in more than sixty different tribal dances. And bring your camera. See ten thousand square feet of the finest handicrafts and a score of craftsmen at work. Thrill to the Navajo Sand Paintings . . . and Navajo magic. And don't miss the native Indian sports, races, games and rodeo. Blanket-cool nights await you. Gallup has eleven hotels and twenty auto courts.

Write the Indian Ceremonial Association for Free Indian Literature

GALLUP, NEW MEXICO . . . AUGUST 12-15

DESERT SOUVENIR

A four-color picture suitable for framing shows the Covered Wagon Train of '68 crossing the desert; now on display at Knott's Berry Place, Highway 39, two miles from Buena Park out of Los Angeles 22 miles. This remarkable oil painting 20x60 feet took over one year to complete. A copy will be mailed you together with the special souvenir edition of our Western Magazine jam-packed with original drawings and pictures and complete description of Ghost Town and Knott's Berry Place. Both will be mailed with current issue of our 32-page magazine for 25 cents postpaid in the U. S. A. Thousands have already viewed this great work of art and acclaim it a wonderful contribution to the history of the West. Admission is without charge whether you stay for the chicken dinner and boysenberry pie or not. Send 25 cents for all three: picture, souvenir and current issue to Ghost Town News, Buena Park, California.

The Desert TRADING POST

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—actually about 1 1/3 cents per thousand readers.

LIVESTOCK

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

KARAKUL SHEEP—Blue Ribbon Quality — Recognized as War Industry—Authentic information furnished. James Yoakum, 1128 N. Hill Avenue, Pasadena, California.

MISCELLANEOUS

12 **BEAUTIFUL** perfect prehistoric Indian Arrowheads, postpaid for a dollar bill. Catalog listing thousands of other relics free. Caddo Trading Post, Glenwood, Arkansas.

PHOTO FINISHING

6 OR 8 **EXPOSURE ROLL** enlarged to mammoth Rancho size, 25c; or 16 small prints from roll, 25c. **RANCHO PHOTO**, Dept. EM, Ontario, California.

MAPS

BLACKBURN MAPS of Southern California desert region. San Bernardino county 28x42 inches \$1.00; San Diego county 24x28 inches 50c; Riverside county 50c; Imperial county 19x24 inches 50c; Yuma and Gila river valley 17x27 inches 50c. Postpaid. Add 3% sales tax in Calif. **DESERT CRAFTS SHOP**, 636 State St., El Centro, California.

REAL ESTATE

For Imperial Valley Farms —
W. E. HANCOCK
"The Farm Land Man"
Since 1914
EL CENTRO — — — CALIFORNIA

Mines and Mining . .

Las Vegas, Nevada . . .

The world's largest magnesite ore concentrating and treating plant at Gabbs valley went into production on schedule June 27 when President Howard P. Eells, Jr., of Basic Magnesium, Inc., threw a switch starting the industry. The plant, designed to produce more than 150,000 tons magnesium oxide per year, will supply the Las Vegas unit with raw material. Construction started last December and 900 men were employed during that stage. Movement of magnesium oxide from Gabbs valley was expected to start within a few days after the plant went into operation.

Dayton, Nevada . . .

Soil deposited over centuries by the Carson river is being dredged and washed at the rate of 15,000 cubic yards per day through the use of a dragline and washing plant of the Dayton Dredging company. The dredge is said to be the largest of its type in the world. The giant machine manufactured in the east was transported to Dayton in 34 standard freight carloads with a total weight of 1,700,000 pounds. The walking-type dragline is equipped with a 185-foot boom. Stacker on the floating washer is 190 feet long and in two sections—the lower measuring 105 feet and the upper 85 feet. Use of this machine permits dredging to a depth of 120 feet, or more than 90 feet deeper than usual dredging.

Reno, Nevada . . .

Arrangements to place the old Commonwealth mine 12 miles south of here back in production are being formulated. California interests are reported to have sampled the property recently. Several years ago the property was tested for Treadwell Yukon Co. and that time it was reported ores contained over 500,000 tons of lead, zinc, gold, silver and iron ore averaging \$16 per ton.

Humboldt, Nevada . . .

Natomas company, using a new dragline dredge, will handle 120,000 cubic yards from the Greenan placers at the mouth of Copper canyon south of Battle Mountain. Millions of yards of placer gravel have been blocked out since the company took a lease on the placer ground. The dredge includes a Monaghan dragline, designed to use a six cubic yard bucket, but a four cubic yard bucket only will be used at first.

Carson City, Nevada . . .

When the Murray aid-to-small-business bill is signed by President Roosevelt, the RFC will make available development loans up to \$5,000 to small mine operators throughout the west, according to Nevada Senator Pat McCarran. Senator McCarran sought passage of a bill to authorize RFC to make such loans, but prior to its enactment Chairman Henderson said his organization would issue directive for loans under Murray bill, "when expenditure may make accessible or reveal sufficient mineral showing to warrant development mining loan."

Angels Camp, California . . .

Urgent need of quartz crystals for oscillators in military radio equipment will bring a resumption in production of ores from the Jack McSorley placers two miles west of Mokelumne hill. Federal authorities are reported ready to purchase all material operators can produce.

Virginia City, Nevada . . .

Indications that famous Comstock lode may be a producer again are contained in the announcement that quartz averaging \$1,000 per ton has been extracted from property of the Consolidated Chollar, Gould and Savage Mining company. The strike was assertedly made in a tunnel driven into a hill where overburden had been removed to permit mining of large low-grade ore bodies. The Comstock lode is credited with producing gold and silver worth close to \$900,000,000.

Washington, D. C. . . .

The number of placer mine claims per individual, corporation or partnership exempt under the mining moratorium act is unlimited, according to an interpretation issued by the United States department of interior. Lode claims are limited to six for an individual owner and 12 for a partnership or corporation. The act specifically provides: "that the provision of section 2324 of the revised statutes 'requiring that no less than \$100 worth of labor be performed annually on each unpatented claim,' be suspended as to all mining claims in the United States from July 1, 1941, until noon, July 1, 1943." In previous years when the labor requirement was suspended it did not apply to any person who paid an income tax. According to Attorney General Wayne McLeod of Nevada, the present act makes no such provision.

Salt Lake City, Utah . . .

Largest known concentrated body of magnesium salts has been disclosed near Thompsons, Utah, through drill tests financed by Defense Plant corporation, according to John Sandburg, president of Utah Magnesium corporation. DPC now will finance an extracting plant at Thompsons, Mr. Sandburg predicts, which will mean construction of a steam electric power plant to provide adequate power from Utah coal available nearby and ultimately construction of a hydro-electric project at Dewey dam site.

ANSWERS TO TRUE OR FALSE

Questions on page 14.

- 1—False. The rattlers fangs are in the upper jaw.
- 2—False—The Mormon battalion was led by Capt. Cooke.
- 3—False. The Joshua tree belongs to the lily family.
- 4—False. A stand of beehives is an apiary.
- 5—True.
- 6—True.
- 7—False. Raton pass is in New Mexico.
- 8—True.
- 9—True.
- 10—False. El Camino del Diablo crossed the Colorado at Yuma.
- 11—True.
- 12—False. Chief Winnemucca was a Paiute.
- 13—True.
- 14—True.
- 15—False. Cameron overlooks the Little Colorado.
- 16—False. Phoenix is the largest city in Arizona.
- 17—True. 18—True.
- 19—False. The pueblos are often two or more stories in height.
- 20—True.

Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

—ARTHUR L. EATON, Editor—

WEST COAST SOCIETY HAS EXHIBIT AT FULLERTON

West Coast mineral society held its "West Coast Mineral Exhibit" Friday, Saturday and Sunday, July 17-18-19, at 109-111 South Spadra road, Fullerton. A large parking lot was reserved in the rear, together with a used car lot for trailers.

Exhibits were restricted to residents of Orange county and that part of Los Angeles county adjacent. Membership of the organization includes persons from both of these districts. Mineral dealers and makers of lapidary equipment were quite welcome. No charge was made for space, nor commission from sales, but each dealer was expected to donate saleable specimens for the auction which was held Saturday evening. The plan did not include placing of exhibits for competition, but solely for their educational and cultural values.

The exhibits were kept open from 2 p. m. to 10 p. m. on Friday and Saturday, and from 10 a. m. to 6 p. m. on Sunday. The purpose of this was to give ample time for those who came from some distance to see all of the exhibits.

West Coast mineral society is among the oldest of the California societies, as it was organized in May, 1935, when there were but four or five in existence. Prior to the organization of the society, prospective members got up quite a creditable exhibit of minerals only, as there were few gem cutters. The July show, however, contained a large proportion of cut stuff, thus reflecting modern tendencies.

AFTER THE WAR IS WON—A VICTORY CONVENTION

C. D. Woodhouse, president of the California Federation of mineralogical societies, in his recent message to the members, explains why it is unwise to have a convention this year. He continues with remarks that are worth the consideration of all:

"For years our Uncle has allowed us to hunt for rocks and collect minerals on his vacant lots. We will all agree that this kindness on his part has given us many happy hours and a host of wonderful memories. Now our recreation is threatened by three international hy-graders who are jealous and envious of our playgrounds. Minerals that mean pleasure to us are, to them, only a means of killing more innocent people and making a hell on earth. Until this banditry is stamped underground for ever, all of us must rally around our Uncle and give him everything that we have so that our right as a free people to enjoy our hobby may not perish from this earth. We have covered a lot of country on our field trips and some of those among us must have observed minerals which will benefit our government in time of war. This is a war by and for minerals and we, as mineralogists, can and must help. It is the duty of every member of every society in the federation to stand by his country and his organization. If we cannot go into the field we can study and work at home. Let us, therefore, resolve to devote all of our time and energy to winning this war and when this is done and we can run all the white and yellow hy-graders off the reservation, the California Federation will have a Victory Convention that will never be forgotten."

MINERAL PROSPECTING STILL IN 'HUNT AND PICK' STAGE

"Prospecting for minerals can be conducted on a far more scientific basis than by just going out with a pick and hunting for them," states Dr. Robert C. Miller, director of the California academy of sciences and chairman of the committee on latent natural resources.

"Oil companies have prospecting down to a scientific basis," says Dr. Miller. "They don't just go around drilling holes in the ground and hoping they will find oil. They first find possible locations by means of geology, geophysics and paleontology, and finally sink a test well. The paleontologist studies the microscopic organisms found in the cuttings, animals and plants that lived thousands of years ago; often he can tell from them the age of the rocks being penetrated, and whether the drill has reached possible oil bearing strata. Most minerals, however seem to be still in the 'hunt and pick' stage."

To aid in deciding where to look for minerals, and in determining advantageous places for industrial plants, the committee on latent natural resources has cooperated with the California division of mines in the preparation of maps showing the distribution of such strategic minerals as iron, limestone, molybdenum, vanadium, titanium, copper, quicksilver, chromite, manganese and tungsten. These maps are now in the offices of the California division of mines in the Ferry building, San Francisco, where they may be consulted by any interested person.

IDENTIFIES MANY SPECIES OF PETRIFIED WOOD

Julian M. Field recently submitted 18 specimens of petrified wood gathered in Oregon to Professor George F. Beck at Ellensburg, Washington, for identification. At the time Professor Beck had reported on these specimens he had not been able to make a thorough study, but reported back as follows: Locust, catalpa, maple,

hackberry, cottonwood, oak, gum, sequoia and fir—several of the specimens being duplicated. In the Nigger Rock region about 35 miles southwest of Vale, were found locust, catalpa, maple, hackberry, oak, sequoia, fir and gumwood. Phipps creek near Jamieson, reveals cottonwood; while specimens found at Cain Springs southeast of Harper were identified as oak.

These specimens represent only a very small section of Malheur county, for there are the extensive fossil beds near Rockville, Succor creek canyon, Quartz mountain, on the Watson road, where the petrified redwood stumps still remain standing. Westfall and Drewsey sections are interesting places as is the Owyhee canyon up above the lake.

EAST BAY CLUB GOES ON DIAMOND HUNT

East Bay mineral society took its May field trip to Pope valley to search for some of the famous Lake county diamonds. At the next meeting of the same society, Julian Smith of San Leandro was elected president, and Nathalie Forsythe of Berkeley, secretary.

On June 4, Dr. Henry H. Hart discussed the subject "Jade, and its place in Chinese life," at the Lincoln school auditorium in Oakland. At the next meeting, June 18, William B. Pitts of Sunnyvale, dean of lapidists, spoke on various phases of his work, and showed specimens of thin sections.

Find hidden values

NEW MODELS

GREATER EFFICIENCY

HIGHER INTENSITY

LIGHTER WEIGHT

FREE 4-Color Catalog



MINERALIGHT

Instantly identifies **SHEELITE**

MINERS — PROSPECTORS ATTENTION!

Are you overlooking hidden riches? Over \$100,000,000.00 worth of Scheelite located by Mineralight users—much of it in gold, lead, silver and copper mining properties. Accurate check for Mercury, too. Models in all sizes shown in new catalog—also are specimens in full color. Money-back guarantee and 20 free ore specimens with each lamp.

WRITE DEPT. T TODAY

ULTRA-VIOLET PRODUCTS, Inc.

5205 SANTA MONICA BLVD. LOS ANGELES

1943 JUBILEE CATALOG . . .

. . . NOW IN PREPARATION

This catalog will contain a very complete listing of metals for the making of jewelry, as well as articles and illustrations helpful in designing and making useful jewelry items. Send us a card or letter stating that you are interested in amateur jewelry work and a copy will be sent when available. It will also list a large selection of magnifying glasses, minerals, and all sorts of collectors supplies.

SEND FOR YOUR FREE COPY of our 10th ANNIVERSARY CATALOG

This lists and describes our large selection of PREFORM CABOCHON BLANKS, sawed slabs of semi-precious gem materials, fluorescent lights, and

"MINERALS FROM THE FOUR CORNERS OF THE EARTH"

We Close at 5:30 P. M. Every Day — Open Evenings by Appointment Only

WARNER & GRIEGER

405 NINITA PARKWAY

Ninita Parkway is one block east of the intersection of So. Hill Ave. and San Pasqual Sts.

Our phone number is SYcamore 6-6423.

PASADENA, CALIFORNIA

HILTON'S *Art and Gem Shop*

JOHN W. HILTON, *Owner*

On U. S. Highway 99, Ten
Miles South of Indio

ACROSS FROM VALERIE JEAN DATE
SHOP. P. O. ADDRESS, THERMAL, CALIF.

STUDENTS AND HOBBYISTS
ALIKE FIND THE

DANA MAGAZINE

A Source of Accurate and Always
Timely and Interesting Informa-
tion on the Absorbing Sub-
jects of ...

- GEOLOGY
- GEMOLOGY
- MINERALOGY

Subscriptions are \$2.00 Yearly;
Single Copies 20c

TELEPHONE TUCKER 6801
428 Metropolitan Bldg.
LOS ANGELES, CALIF.

AMONG THE ROCK HUNTERS

Long Beach mineralogical society met June 12 in the Presbyterian church cottage to view movies of the Hawaiian islands. Each member brought material for a swap session. Mr. Cutler donated a beautiful piece of milky quartz, and Mr. Bond gave a large magnetite specimen for the communal collection. The club picnic with the Cactus club was held in Silverado canyon. The mine has been closed to the public for strategic reasons, but several members found good specimens of silver ore on the old dump.

Dorothy C. Craig, new corresponding secretary of Southwest mineralogists, Los Angeles, writes: "We hope to make up by study and by social activities the necessary curtailment of field trips for the duration, and know that Desert Magazine will fill a large part of the gap, felt now that we can't go places and see things for ourselves." Thanks, Dorothy.

E. A. Van Amringe, head of the department of geology of Pasadena junior college, addressed the Mineralogical Society of Southern California May 11 on the subject "A Mineral Collecting Trip to the Mojave Desert," illustrating his talk with numerous kodachrome slides and interesting anecdotes of the trip.

Los Angeles mineralogical society turned its June 18 dinner meeting into an annual auction. President James C. Arnold announced that there would be no personal sales nor trading of minerals permitted on that occasion. The duel purposes of the auction were to cover some of the operating expenses of the society, and to give members a chance to add to their own private collections. Paul H. M. P. Brinton spoke on beryllium later in the same meeting.

The Southwest mineralogists of Los Angeles have elected the following officers for the year 1942-1943: C. R. Standridge, president; Joe Vercellone, vice-president; Frank Stillwell, treasurer; Herbert Collins, recording secretary; Dorothy C. Craig, corresponding secretary. The above, with Jeane Lippett, Albert Hake and Harold Eales, form the board of directors. All meetings are held, on the first and third Fridays of each month, at Harvard playground, 6120 Denker avenue, Los Angeles.

Imperial Valley gem and mineral society voted to discontinue meetings until September 15 due to the absence of many members on vacation or in war work. The final June meeting was held at the home of Mr. and Mrs. H. Soper in El Centro. A swap game furnished each of those present with new gem specimens.

New Jersey mineralogical society, of Plainfield, New Jersey, announced election of the following officers: Joseph D'Agostino, president; O. I. Lee and S. S. Cole, vice-presidents; G. R. Stillwell, secretary; Miss H. M. Hageman, assistant secretary; O. B. J. Fraser, treasurer; Miss E. M. Hensel, librarian; J. N. DuPont, curator.

O. B. J. Fraser reports that to date the Plainfield, New Jersey, group has managed fairly well with field trips, but that, hereafter, nearby localities, trips to collections, or other things of mineralogical interest that can be reached by train or other public conveyance, will have to suffice.

Miss T. Antoinette Ryan, geological coordinator of the California state bureau of war materials, has verified the discovery of a massive ledge of tin, 40 feet wide and seven miles long, on the Derrick ranch near Healdsburg, Sonoma county, California. A second large deposit of tin, amounting to 105 claims, is reported to have been acquired by large mining interests in Modoc county. Development is proceeding rapidly.

GEM MART

ADVERTISING RATE
5c a Word — Minimum \$1.00

Folks it happened at last. Old Drywash Chambers had to settle down, had to save tires to hunt rocks, but the prospectors all over the west still send in specimens so you will find a lot of rare and beautiful material at the new Desert Rats Nest. If you write and tell me what you want, and I don't have it, I will get it for you. So drop in as you go by and get acquainted. Mail orders filled C.O.D. Six big local specimens for two dollars and postage on three pounds. The Desert Rats Nest, 2667 East Colorado, East Pasadena, Calif. G. W. Chambers (the Desert Rat).

SPECIAL \$3.00 COMBINATION, rough Cabochon material, suitable for cutting, Amazonite, New Mexico Moonstone, Sunstone, Moss Agate, 5 Lake Superior Agates, Turquoise, Opal. Also large variety AUSTRALIAN BOULDER OPAL specimens showing vivid flashes of red, green and blue —priced from 25c to \$1.00. Frederick J. Essig & Co., 162 N. State St., Chicago, Ills.

100 GOOD GRADE Prehistoric Indian Arrowheads \$3.00. Mixed shapes and material. Ages old. List free. Lear Howell, Glenwood, Arkansas.

INDIAN RELICS, Beadwork, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons. Catalog 5c. Vernon Lemley, Osborne, Kansas.

200 JEWELRY STONES removed from rings, etc., assorted \$2.00. B. Lowe, Box 311, St. Louis, Mo.

AN INVITATION: Want to know where to hunt rock? Want a rock sawed or polished? Want a cabochon or pendant made, either from your rock or your choice of our supply? Want to see a world-wide collection of rock? Want to sell rock? Want information or instructions on cutting and finishing at home? Then drop in on us—we rock folks to sleep. Open every day except Sunday. Saturday from nine to nine. Chuck and Rocky, 201 Broadway Arcade Bldg, 542 South Broadway, Los Angeles, Calif.

AGATES, Jaspers, Opalized and Agatized woods, Thunder eggs, polka dot and other specimens. Three pound assortment \$1.50 postpaid. Glass floats, price list on request. Jay Ransom, Aberdeen, Wash.

WANTED: Western Minerals, crystallized or rare. Will buy or exchange for Franklin, N. J., Minerals. John S. Albanese, Post Office Box 281, Newark, N. J.

ZIRCONS—OPALS—CAMEOS—3 Genuine diamond cut Zircons (total 2½ carat) \$2.75. Twelve Genuine Opals \$1.50. Twelve Genuine Cameos \$2.50. B. Lowe, Box 311, St. Louis, Mo.

10 Tiny perfect Indian bird arrows of translucent chalcedony for a dollar bill. 100 ancient arrows \$3.00. List Free. Lear Howell, Glenwood, Arkansas.

BAD NEWS FOR THE SON OF HEAVEN! . . .

We were glad we attended the exhibition of the Los Angeles Lapidary Society. It is doubtful if any other group in the U. S. could have equalled this showing.

Of course most of the outstanding winners used "STREAMLINER" HEAVY DUTY DIAMOND SAWS.

At the present we are under contract filling orders for America's largest corporations, and the U. S. Govt., and as you read this, hundreds of "Streamliners" are whirring away, night and day they never stop. They are doing their part to cut down Hitler's lead.

We are now working on the largest order for Diamond Saws ever placed. Also included in this order are the largest saws ever constructed. Naturally we are taxed to capacity, but we aim to take care of our regular customers. But please do not send us rush orders, a slight delay may occur in making delivery.

Your next saw should be a Heavy Duty, Tooth Lokt, Precision "Streamliner" Diamond Saw, Patents Applied. And at no extra cost. 10-in.—\$6.50 12-in.—7.50 14-in.—9.00 16-in.—11.50 Postage 25c.

Wilfred C. Eyles

Lapidary Engineer

2794-A Street Hayward, California

Cogitations . . .

Of a Rockhound

By LOUISE EATON

• Rockhoundin' is a peculiar diseez that ken be acquired very eazily 'n in meny ways. Sum folks ketch it by goin' on trips with other rockhouns; sum by jest lookin' at pretty rocks in a museum 'r exhibishun; 'n sum jest plain inherit it from their auntsestors. In eny case, when the diseez is once contracted, it is sorta permanent 'n incurable. Very few ever backslide.

• This diseez is a sorta insanity that breaks out in a rockhoun on most eny occashun, enywhere. One pore rockhoun got hisself made into a soldier 'n sent to sum outta the way place on a rocky island. Bang! Out busted the rockhoun diseez, when he found stains of copper on the side of one of them rocks. He sez he is goin' back sum day to try 'n find out where them stains cum frum.

Frank Hornkohl demonstrated spectrographic methods of determining minerals to Kern county mineral society at its June meeting. He acted as host at the Hornkohl chemical laboratories, which are equipped to make complete spectrographic analyses.

Peter W. Burk, new secretary of Orange Belt mineralogical society, states that 21 members and friends enjoyed a pot luck supper, June 21, at the cabin of Virginia Ashby, Forrest Home. Kenneth Garner, secretary of the California Federation, talked on the construction of the Basic Magnesium, Inc., plant, at Royson, Nevada, and the process of handling the ore.

Los Angeles mineralogical society met at Tustin, California, June 28, for a field trip. Mr. Bessette led the members to a nearby field to collect barite and metacinnabarite.

President Don Major of Northwest Federation of mineralogical societies has just issued a directory of the member societies, together with a list of members of each society, and the address of each. The booklet also includes the constitution of the federation.

W. L. Couzins of the Fairchild aerial survey addressed the May dinner meeting of Pacific Mineral society on "Aerial Surveying and Its Relation to Geology," using aerial slides as illustrations. For the May field trip, members went to Darwin district in Inyo county, California, where they visited Defiance, Thompson and Cord mines. Among specimens found were galena, pyrite, anglesite, hemimorphite, linarite, aurichalcite, fluorite, calcite, hydrozincite, limonite, malachite, wulfenite, and scheelite crystals.

Members of the Searles Lake gem and mineral society had a picnic meeting June 17 at Valley Wells where the speaker was George Gardner, the "Slate Range Hermit." June 25 the club was shown the moving pictures "Potash Production in America" at the Trona club.

Sequoia mineral society enjoyed a combination picnic dinner and mineral meeting in Dinuba park July 6. Each family brought and cooked its own dinner, then settled down to a minerals meeting at 7:45. They listened to a talk by Dr. Weddle on his recent trip to Utah, Nevada and Arizona, illustrated by slides.

Pacific mineral society is to be congratulated on the inauguration of a radically new idea. An "organizing committee" has been formed for the purpose of visiting various communities to exhibit mineral specimens and "to promote the advancement and study of mineralogy through the organization of mineral societies." Among the leaders in this work are Dean DeVoe and Warren Jones. This seems to be one of the finest ideas in many years for the advancement of the science.

Imperial Valley gem and mineral society, although small in membership, is very active. Outstanding exhibits of minerals were placed on view at the Imperial county fair and at the "Calxico Cavalcade." Parties have replaced some of the regular meetings. In May the third birthday of the organization was celebrated at the Sam Robinson ranch, north of Holtville, where some attempt was made to test the ability of members in mineral identification. Other party-meetings have been held at the homes of A. L. Eaton, President Lloyd Richardson, and Howard Soper.

Sequoia mineral society has invented a novel and interesting way to outwit old bugaboo "tire shortage." Visiting days, Sunday, April 19, the group visited the homes of seven members in Selma who have fine collections. and, in May, held a "Fresno visiting day."

West Coast mineral society May 5 elected and installed the following officers: Charles S. Knowlton, of Fullerton, president; Mrs. Bertha Crane of Santa Ana, first vice-president; N. W. Mathews of Fullerton, second vice-president; Lee Seabridge of Norwalk, secretary-treasurer, and delegate to the Federation; Lawrence Sherwood of Fullerton and John Smith of Santa Ana to the executive board. Instead of suspending meetings for the summer, West Coast expects to hold picnic dinner meetings, and may even hold an exhibit if conditions permit.

San Diego, California, rockhounds shared experiences in a discussion of cutting material locations at the evening meeting in natural history museum, Balboa park, June 12. Reports were made on how to get there and what to find, by G. D. (Jack) Martin, president of the society, W. H. Murphy, Robert Rowland, and K. K. Brown. Other members added helpful information on nearby sources.

Geologists of the California state bureau of war minerals production report potentially rich deposits of scheelite, calcium tungstate, along the western slope of the Sierra Nevada, from Mariposa county to Kern county. The area is approximately 130 miles long and eight miles wide, with at least 110 deposits averaging one percent concentration.

The Santa Monica gemological society heard a talk by its field trip chairman, Cliff Schrader, at its June meeting. He told of a trip he once made to Virgin valley, Nevada, for fire opals, and exhibited specimens. One field trip was made by the society this month to the nearby mountains for fossils. Members attended a swap party at the home of the corresponding secretary, Miss Sadie Sherman, in Los Angeles on June 18. Colored slides were shown of various desert areas and members enjoyed viewing Miss Sherman's collection of minerals and polished specimens.

John M. Grieger of Warner and Grieger, Pasadena, left the last week of June to spend several weeks in the East. Among other business errands will be an inspection of the Shulak mineral collection at Chicago.

Mojave Desert Gem and Mineral Shop . . .

On Highway 91, 10 Mi. East of Barstow
Two Miles West of Yermo California
E. W. SHAW, P. O. Box 363, Yermo, Calif.



THIS RING MADE IN
STERLING SILVER
WITH YOUR STONE
\$8.00

(plus Federal and sales
taxes)

Jewel Craft

704 S. San Pedro, Los Angeles



MINERAL IDENTIFICATION SIMPLIFIED

By O. C. Smith, A.B., A.M.

"CLASSIFIES ALL
MINERALS TO 1940"

Simplicity for the amateur, Completeness for the professional.

Complete BLOWPIPE METHODS and TABLES.

Price — \$3.50 — Plus tax in California

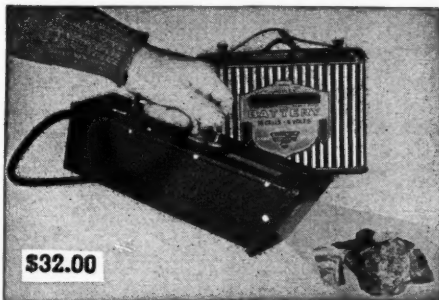
Order from — O. C. SMITH - Dept. D
5157 Santa Ana St. — Bell, California

THE 304 D. C.
— 6 VOLT —

BLACK LIGHT ULTRA-VIOLET FLUORESCENCE

Locates Scheelite and Other Strategic Minerals

Try it on your next field trip.



\$32.00

Exclusive Outstanding Features . . .

- Laboratory and field tested to insure its efficiency.
- Meets the requirements of the prospector and geologist in the field, small, compact, light weight.
- A powerful generator of invisible Ultra-Violet energy. Pure Fused Quartz burner, and special U. V. filter.

— FIVE OTHER MODELS —
Send for Literature

DALLONS LABORATORIES

5066 Sta. Monica Blvd., Los Angeles

HILTON'S *Art and Gem Shop*

JOHN W. HILTON, *Owner*

On U. S. Highway 99, Ten Miles South of Indio

ACROSS FROM VALERIE JEAN DATE SHOP. P. O. ADDRESS, THERMAL, CALIF.

STUDENTS AND HOBBYISTS
ALIKE FIND THE

DANA MAGAZINE

A Source of Accurate and Always Timely and Interesting Information on the Absorbing Subjects of...

- GEOLOGY
- GEMOLOGY
- MINERALOGY

Subscriptions are \$2.00 Yearly;
Single Copies 20c

TELEPHONE TUCKER 6801
428 Metropolitan Bldg.
LOS ANGELES, CALIF.

AMONG THE ROCK HUNTERS

Long Beach mineralogical society met June 12 in the Presbyterian church cottage to view movies of the Hawaiian islands. Each member brought material for a swap session. Mr. Cutler donated a beautiful piece of milky quartz, and Mr. Bond gave a large magnetite specimen for the communal collection. The club picnic with the Cactus club was held in Silverado canyon. The mine has been closed to the public for strategic reasons, but several members found good specimens of silver ore on the old dump.

Dorothy C. Craig, new corresponding secretary of Southwest mineralogists, Los Angeles, writes: "We hope to make up by study and by social activities the necessary curtailment of field trips for the duration, and know that Desert Magazine will fill a large part of the gap, felt now that we can't go places and see things for ourselves." Thanks, Dorothy.

E. A. Van Amringe, head of the department of geology of Pasadena junior college, addressed the Mineralogical Society of Southern California May 11 on the subject "A Mineral Collecting Trip to the Mojave Desert," illustrating his talk with numerous kodachrome slides and interesting anecdotes of the trip.

Los Angeles mineralogical society turned its June 18 dinner meeting into an annual auction. President James C. Arnold announced that there would be no personal sales nor trading of minerals permitted on that occasion. The duel purposes of the auction were to cover some of the operating expenses of the society, and to give members a chance to add to their own private collections. Paul H. M. P. Brinton spoke on beryllium later in the same meeting.

The Southwest mineralogists of Los Angeles have elected the following officers for the year 1942-1943: C. R. Standridge, president; Joe Vercellone, vice-president; Frank Stillwell, treasurer; Herbert Collins, recording secretary; Dorothy C. Craig, corresponding secretary. The above, with Jeane Lippett, Albert Hake and Harold Eales, form the board of directors. All meetings are held, on the first and third Fridays of each month, at Harvard playground, 6120 Denker avenue, Los Angeles.

Imperial Valley gem and mineral society voted to discontinue meetings until September 15 due to the absence of many members on vacation or in war work. The final June meeting was held at the home of Mr. and Mrs. H. Soper in El Centro. A swap game furnished each of those present with new gem specimens.

New Jersey mineralogical society, of Plainfield, New Jersey, announced election of the following officers: Joseph D'Agostino, president; O. I. Lee and S. S. Cole, vice-presidents; G. R. Stillwell, secretary; Miss H. M. Hageman, assistant secretary; O. B. J. Fraser, treasurer; Miss E. M. Hensel, librarian; J. N. DuPont, curator.

O. B. J. Fraser reports that to date the Plainfield, New Jersey, group has managed fairly well with field trips, but that, hereafter, nearby localities, trips to collections, or other things of mineralogical interest that can be reached by train or other public conveyance, will have to suffice.

Miss T. Antoinette Ryan, geological coordinator of the California state bureau of war materials, has verified the discovery of a massive ledge of tin, 40 feet wide and seven miles long, on the Derrick ranch near Healdsburg, Sonoma county, California. A second large deposit of tin, amounting to 105 claims, is reported to have been acquired by large mining interests in Modoc county. Development is proceeding rapidly.

GEM MART

ADVERTISING RATE
5c a Word — Minimum \$1.00

Folks it happened at last. Old Drywash Chambers had to settle down, had to save tires to hunt rocks, but the prospectors all over the west still send in specimens so you will find a lot of rare and beautiful material at the new Desert Rats Nest. If you write and tell me what you want, and I don't have it, I will get it for you. So drop in as you go by and get acquainted. Mail orders filled C.O.D. Six big local specimens for two dollars and postage on three pounds. The Desert Rats Nest, 2667 East Colorado, East Pasadena, Calif. G. W. Chambers (the Desert Rat).

SPECIAL \$3.00 COMBINATION, rough Cabochon material, suitable for cutting, Amazonite, New Mexico Moonstone, Sunstone, Moss Agate, 5 Lake Superior Agates, Turquoise, Opal. Also large variety **AUSTRALIAN BOULDER OPAL** specimens showing vivid flashes of red, green and blue — priced from 25c to \$1.00. Frederick J. Essig & Co., 162 N. State St., Chicago, Ills.

100 GOOD GRADE Prehistoric Indian Arrowheads \$3.00. Mixed shapes and material. Ages old. List free. Lear Howell, Glenwood, Arkansas.

INDIAN RELICS, Beadwork, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons. Catalog 5c. Vernon Lemley, Osborne, Kansas.

200 JEWELRY STONES removed from rings, etc., assorted \$2.00. B. Lowe, Box 311, St. Louis, Mo.

AN INVITATION: Want to know where to hunt rock? Want a rock sawed or polished? Want a cabochon or pendant made, either from your rock or your choice of our supply? Want to see a world-wide collection of rock? Want to sell rock? Want information or instructions on cutting and finishing at home? Then drop in on us—we rock folks to sleep. Open every day except Sunday. Saturday from nine to nine. Chuck and Rocky, 201 Broadway Arcade Bldg, 542 South Broadway, Los Angeles, Calif.

AGATES, Jaspers, Opalized and Agatized woods, Thunder eggs, polka dot and other specimens. Three pound assortment \$1.50 postpaid. Glass floats, price list on request. Jay Ransom, Aberdeen, Wash.

WANTED: Western Minerals, crystallized or rare. Will buy or exchange for Franklin, N. J., Minerals. John S. Albanese, Post Office Box 281, Newark, N. J.

ZIRCONS—OPALS—CAMEOS—3 Genuine diamond cut Zircons (total 2½ carat) \$2.75. Twelve Genuine Opals \$1.50. Twelve Genuine Cameos \$2.50. B. Lowe, Box 311, St. Louis, Mo.

10 Tiny perfect Indian bird arrows of translucent chalcedony for a dollar bill. 100 ancient arrows \$3.00. List Free. Lear Howell, Glenwood, Arkansas.

BAD NEWS FOR THE SON OF HEAVEN! . . .

We were glad we attended the exhibition of the Los Angeles Lapidary Society. It is doubtful if any other group in the U. S. could have equalled this showing.

Of course most of the outstanding winners used **"STREAMLINER" HEAVY DUTY DIAMOND SAWS**.

At the present we are under contract filling orders for America's largest corporations, and the U. S. Govt., and as you read this, hundreds of "Streamliners" are whirring away, night and day they never stop. They are doing their part to cut down Hitler's lead.

We are now working on the largest order for Diamond Saws ever placed. Also included in this order are the largest saws ever constructed. Naturally we are taxed to capacity, but we aim to take care of our regular customers. But please do not send us rush orders, a slight delay may occur in making delivery.

Your next saw should be a Heavy Duty, Tooth Lokt, Precision "Streamliner" Diamond Saw, Patents Applied. And at no extra cost. **10-in.—\$6.50**
12-in.—7.50 **14-in.—9.00** **16-in.—11.50**
Postage 25c.

Wilfred C. Eyles

Lapidary Engineer
2794-A Street Hayward, California

Cogitations . . .

Of a Rockhound

By LOUISE EATON

• Rockhoundin' is a peculiar diseez that ken be acquired very eazily 'n in meny ways. Sum folks ketch it by goin' on trips with other rockhouns; sum by jest lookin' at pretty rocks in a museum 'r exhibishun; 'n sum jest plain inherit it from their auntsestors. In eny case, when the diseez is once contracted, it is sorta permanent 'n incurable. Very few ever backslide.

• This diseez is a sorta insanity that breaks out in a rockhoun on most eny occashun, enywhere. One pore rockhoun got hisself made into a soldier 'n sent to sum outta the way place on a rocky island. Bang! Out busted the rockhoun diseez, when he found stains of copper on the side of one of them rocks. He sez he is goin' back sum day to try 'n find out where them stains cum frum.

Frank Hornkohl demonstrated spectrographic methods of determining minerals to Kern county mineral society at its June meeting. He acted as host at the Hornkohl chemical laboratories, which are equipped to make complete spectrographic analyses.

Peter W. Burk, new secretary of Orange Belt mineralogical society, states that 21 members and friends enjoyed a pot luck supper, June 21, at the cabin of Virginia Ashby, Forrest Home. Kenneth Garner, secretary of the California Federation, talked on the construction of the Basic Magnesium, Inc., plant, at Royson, Nevada, and the process of handling the ore.

Los Angeles mineralogical society met at Tustin, California, June 28, for a field trip. Mr. Bessette led the members to a nearby field to collect barite and metacinnabarite.

President Don Major of Northwest Federation of mineralogical societies has just issued a directory of the member societies, together with a list of members of each society, and the address of each. The booklet also includes the constitution of the federation.

W. L. Couzins of the Fairchild aerial survey addressed the May dinner meeting of Pacific Mineral society on "Aerial Surveying and Its Relation to Geology," using aerial slides as illustrations. For the May field trip, members went to Darwin district in Inyo county, California, where they visited Defiance, Thompson and Cord mines. Among specimens found were galena, pyrite, anglesite, hemimorphite, linarite, aurichalcite, fluorite, calcite, hydrozincite, limonite, malachite, wulfenite, and scheelite crystals.

Members of the Searles Lake gem and mineral society had a picnic meeting June 17 at Valley Wells where the speaker was George Gardner, the "Slate Range Hermit." June 25 the club was shown the moving pictures "Potash Production in America" at the Trona club.

Sequoia mineral society enjoyed a combination picnic dinner and mineral meeting in Dinuba park July 6. Each family brought and cooked its own dinner, then settled down to a minerals meeting at 7:45. They listened to a talk by Dr. Weddle on his recent trip to Utah, Nevada and Arizona, illustrated by slides.

Pacific mineral society is to be congratulated on the inauguration of a radically new idea. An "organizing committee" has been formed for the purpose of visiting various communities to exhibit mineral specimens and "to promote the advancement and study of mineralogy through the organization of mineral societies." Among the leaders in this work are Dean DeVoe and Warren Jones. This seems to be one of the finest ideas in many years for the advancement of the science.

Imperial Valley gem and mineral society, although small in membership, is very active. Outstanding exhibits of minerals were placed on view at the Imperial county fair and at the "Calexico Cavalcade." Parties have replaced some of the regular meetings. In May the third birthday of the organization was celebrated at the Sam Robinson ranch, north of Holtville, where some attempt was made to test the ability of members in mineral identification. Other party-meetings have been held at the homes of A. L. Eaton, President Lloyd Richardson, and Howard Soper.

Sequoia mineral society has invented a novel and interesting way to outwit old bugaboo "tire shortage." Visiting days, Sunday, April 19, the group visited the homes of seven members in Selma who have fine collections. and, in May, held a "Fresno visiting day."

West Coast mineral society May 5 elected and installed the following officers: Charles S. Knowlton, of Fullerton, president; Mrs. Bertha Crane of Santa Ana, first vice-president; N. W. Mathews of Fullerton, second vice-president; Lee Seabridge of Norwalk, secretary-treasurer, and delegate to the Federation; Lawrence Sherwood of Fullerton and John Smith of Santa Ana to the executive board. Instead of suspending meetings for the summer, West Coast expects to hold picnic dinner meetings, and may even hold an exhibit if conditions permit.

San Diego, California, rockhounds shared experiences in a discussion of cutting material locations at the evening meeting in natural history museum, Balboa park, June 12. Reports were made on how to get there and what to find, by G. D. (Jack) Martin, president of the society, W. H. Murphy, Robert Rowland, and K. K. Brown. Other members added helpful information on nearby sources.

Geologists of the California state bureau of war minerals production report potentially rich deposits of scheelite, calcium tungstate, along the western slope of the Sierra Nevada, from Mariposa county to Kern county. The area is approximately 130 miles long and eight miles wide, with at least 110 deposits averaging one percent concentration.

The Santa Monica gemological society heard a talk by its field trip chairman, Cliff Schrader, at its June meeting. He told of a trip he once made to Virgin valley, Nevada, for fire opals, and exhibited specimens. One field trip was made by the society this month to the nearby mountains for fossils. Members attended a swap party at the home of the corresponding secretary, Miss Sadie Sherman, in Los Angeles on June 18. Colored slides were shown of various desert areas and members enjoyed viewing Miss Sherman's collection of minerals and polished specimens.

John M. Grieger of Warner and Grieger, Pasadena, left the last week of June to spend several weeks in the East. Among other business errands will be an inspection of the Shulak mineral collection at Chicago.

Mojave Desert Gem and Mineral Shop . . .

On Highway 91, 10 Mi. East of Barstow
Two Miles West of Yermo California
E. W. SHAW, P. O. Box 363, Yermo, Calif.



THIS RING MADE IN
STERLING SILVER
WITH YOUR STONE
\$8.00

(plus Federal and sales taxes)

Jewel Craft

704 S. San Pedro, Los Angeles



MINERAL IDENTIFICATION SIMPLIFIED

By O. C. Smith, A.B., A.M.

"CLASSIFIES ALL MINERALS TO 1940"

Simplicity for the amateur, Completeness for the professional.

Complete BLOWPIPE METHODS and TABLES.

Price — \$3.50 — Plus tax in California

Order from - O. C. SMITH - Dept. D
5157 Santa Ana St. — Bell, California

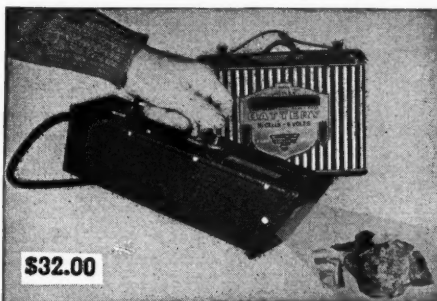
THE 304 D. C.
— 6 VOLT —

BLACK LIGHT — DISCOVERS HIDDEN VALUES

ULTRA-VIOLET FLUORESCENCE

Locates Scheelite and Other Strategic Minerals

Try it on your next field trip.



Exclusive Outstanding Features . . .

- Laboratory and field tested to insure its efficiency.
- Meets the requirements of the prospector and geologist in the field, small, compact, light weight.
- A powerful generator of invisible Ultra-Violet energy. Pure Fused Quartz burner, and special U. V. filter.

— FIVE OTHER MODELS —
Send for Literature

DALLONS LABORATORIES

5066 Sta. Monica Blvd., Los Angeles

LAPIDARY EQUIPMENT . . .
Also Diamond Saw Blades and Supplies
J. ROY GARDNER
5340 Blackwelder St., Los Angeles, WA9221

RX—the complete
lapidary shop in
one small machine
Write for circular
and free working chart.
W. A. FELKER 3521 Emerald St., Torrance, California

Covington LAPIDARY EQUIPMENT
FOR QUARTZ CRYSTAL WORK
Used by the U. S. Government

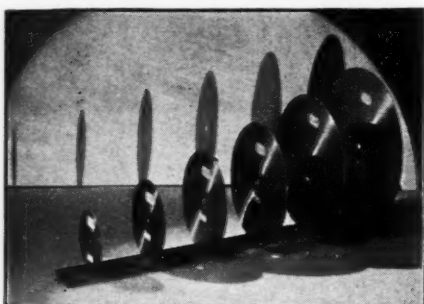
Multi-Speed 16-inch LAP UNIT
assembled all ready to use, with inclosed shaft and ball bearing thrust. Also removable Lap Plate, for Lapping, Grinding, sanding and Polishing.

14-inch Power Feed DIAMOND SAW
with Covington Swing Arm insures maximum blade life and prevents carriage and bearing wear. Has 5-inch slabbing area.

"OLD MISER"
Lapping Compound
Saves every grain of grit.
Send for Literature to any of our dealers or—

Covington LAPIDARY ENGINEERING CO.
12 CAJON ST. • REDLANDS, CAL.

VRECO DIAMOND SAWS



6-in.....	\$3.90	12-in.....	\$ 7.50
8-in.....	4.60	14-in.....	9.50
10-in.....	5.90	16-in.....	11.90

POSTPAID
Be Sure to Specify Arbor Hole Size.

Send for Free Illustrated Booklet on
Vreco Gem Cutting Equipment
and Supplies

Vreeland Lapidary Mfg. Co.
2020 S. W. Jefferson St. Portland, Ore.

AMATEUR GEM CUTTER

Here is a new department in *Desert Magazine* for hobbyists who have, or aspire to have, their own gem cutting and polishing equipment. Leland Quick, former president of the Los Angeles Lapidary society, will conduct the column, presenting each month practical suggestions for converting rough stones into polished gems.

By LELANDE QUICK

While writing is no new adventure for me, writing on lapidary subjects most certainly is, and I approach my new stint with the *DESERT MAGAZINE* as eagerly as a rockhound jumps a claim for a specimen—or two. While people with hobbies never go crazy (some say they are all crazy) sometimes people with a crusade do get a bit balmy. My hobby is being a lapidary and my crusade is to revive that lost art of cutting gem stones. It is the only hobby that can be followed wherever there is land—in any season, climate or variety of weather. It knows no season and requires no license and when one cannot roam around after likely material he can stay at home and worry the specimens he has collected. If he has no rubber for trips he can spend the time working up the stuff he has—if he can get carborundum.

Now mineralogical societies are fine but they do not go far enough. That is to say, they teach men to collect specimens to show their friends unacquainted with mineralogy. But they should also teach the collector to cut and polish his better specimens and create something himself. Every mineralogist would be a better mineralogist if he was also a lapidary. On the other hand, a man can be as stupid as a goose about mineralogy and still become a skilled lapidary.

There is a wide misuse of the words "lapidist" and "lapidarist." A lapidist or a lapidarist is a person skilled in the knowledge of gems, a connoisseur (gemologist is the new and popular term). A "lapidary" is either a person who cuts and polishes gems, or, it is his shop, just as ye olde-fashioned apothecary dispensed his stuff in an apothecary instead of serving tuna on rye in a "drug" store. A lapidarian is the same as a lapidary but the term is obsolete although it is sometimes used as an adverb. A man can be a lapidist and never cut a gem; he can be a lapidary and not know that amethyst is purple quartz.

For the record, then, let me say that I am not a mineralogist, a lapidist or a lapidarist, but I am a lapidary and I do my gem cutting in my lapidary. For all would-be lapidaries this column will be conducted hereafter. It will give useful hints on cutting and polishing; attempt to answer questions about materials; bring the romance of gems to you; try to stimulate an interest in this lost art.

Yes, it was the "lost art" until recently. Professional lapidaries guarded their secrets so well through the years that it is said there exists nowhere in the world today one man who could take a diamond in the rough and go through all the lapidary stages until he has a faceted stone. The so-called "diamond cutters" are skilled in only one or two phases of the business. There is an understandable resentment among professional lapidaries today at the mounting interest of the public in amateur gem cutting. It is true that many of us sell a stone now and then to help with the overhead but I think we make business for the profes-

sional artisans by the interest we stimulate. Few of us have any idea of turning an avocation into a vocation.

There is a vast fraternity of amateur lapidaries who have blundered into amazing short-cuts, who have devised remarkable machinery, who have dreamed rocks gathered at seashore, mountain and desert into superb gem specimens, who have discovered new varieties; a generous group of people who want to tell you *how* if you will only ask. If you have questions about gem grinding, if you have ideas for others, write to me and tell me about them. These columns are for you and I hope they will prove useful to all lapidaries, interesting to all readers.

If a diamond is exposed to radium emanations it will turn green.

Jade, the favorite gem material of the Chinese, is not found in China. The name comes from the Spanish words "piedra de hijalda" or "stone of the flank" because the South American Indians wore it over the kidneys to cure kidney disease.

LAPIDARY HELPS AND HINTS . . .

Cut the bristles from old scrub brushes and cover the wood with various grades of carborundum cloth. Use these to hand polish bookends, clock mounts, etc., made of onyx. They were intended to fit the hand and the job is far less tiring when they are used.

For a high polish on rhodonite use a well-worn sanding disk at high speed (3500 R.P.M.) and keep the stone moving fast. Watch the heat! No further polishing is required; another hour on a felt buff with tin oxide will not enhance the polish at all.

Do you want to have great fun and satisfaction in coloring your desert chalcedony rosettes and Mint canyon nodules? Soak them for a week in potassium ferrocyanide and then for another week in ferrous sulphate if you want them blue or soak them in the ferrous sulphate solution first and then bake them in a loaf of bread (for slow heating and cooling) if you want them red. A chromium and nickel solution turns them green and hydrochloric acid makes them yellow. Do the coloring while the material is in the rough and then select the best color for your gems.

Use modeling clay instead of plaster of paris to hold stones for re-sawing. Clay has a high viscosity and does not permit the stone to chatter against the saw blade.

Put 10 percent oil in your mud; it prevents rust and does not retard the sawing time.

Desert Magazine readers seeking information in connection with their lapidary work should address their letters to Desert Magazine, El Centro, California. As far as practicable, Mr. Quick will give the answers in this column.

MY DESERT ADVENTURE . . .

PRIZE ANNOUNCEMENT

Strange and exciting are stories that come out of the desert—stories that need no embellishment to give them color and mystery. In order to obtain some of the best of these personal adventures, Desert Magazine will award a series of prizes for those judged to be acceptable for use in these pages.

For the best story of approximately 1500 words or less, an award of \$25.00 will be made. To each other contestant who submits an acceptable story the award will be \$10.

The manuscript should be a true experience, preferably of the writer—no yarns or tall tales or heresay stories will qualify. The experience may involve danger while lost on the desert, an adventure while living or traveling in the desert wilderness, or the Indian country. It may be the meeting of an unusual character, revealing a phase of human nature, or a distinct way of life.

Two excellent examples of the types of stories which will be most acceptable, appeared in last month's Desert Magazine—Charles Kelly's adventure **GOLD HUNTERS ARE LIKE THAT**, and Phil K. Stephen's story **BEAUTY IS NOT IN FACES**.

The contest is open to amateur and professional writers alike, but those who plan to submit manuscripts should carefully observe the following rules:

All manuscripts must be typewritten, on one side of the page only.

Entries should be addressed to Editor Desert

Magazine, El Centro, California, and must reach this office by September 1, 1942, to qualify for the awards.

If good sharp 5x7 or larger pictures are available, an extra \$2.00 will be paid for each photograph accepted. Pictures are not essential, however.

Writers must be prepared to supply confirmation as to the authenticity of their stories. Only true experiences are wanted.

All stories must be essentially of the desert, and the scene is limited to Arizona, Nevada,

Utah, New Mexico and the desert area of California.

True names of those involved must be given, although with the knowledge of the judges, fictitious names may be substituted in special cases where there is reflection on personal character.

If the story has appeared previously in print, this fact and the time and name of the medium in which it appeared should be given.

All readers of Desert Magazine are invited to submit manuscripts.

Judging will be done by the staff of Desert Magazine, and the decision of the judges will be final. Unaccepted manuscripts will be returned if accompanied by return postage.



The Angelus Hotel

Unusually large and airy rooms, furnished with a type, size, and grade of furniture seldom found in modern hotels. Your choice of double or twin beds, all with deluxe inner spring mattresses and box springs, thus guaranteeing the acme of comfort and luxury.

RATES: Room with private bath—\$2.00-\$2.50-\$3.00, one or two persons. Without private bath, \$1.50-\$2.00, one or two persons

— Special Weekly Rates —

Fourth and Spring Streets

LOS ANGELES

A. C. Berghoff, Proprietor—Harry J. Wall, Manager

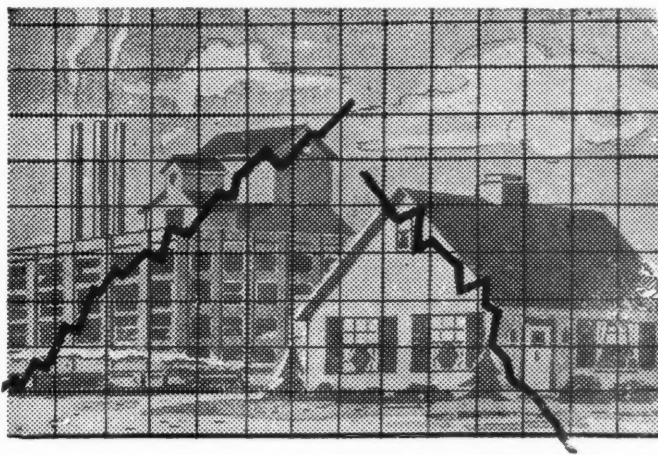
District Power Aids Battle for Victory . . .

With hydro-electric plants operated by the Imperial Irrigation District along the All-American canal 24 hours a day the Imperial Valley's own cooperative water and power production facilities are contributing to eventual UNITED NATIONS VICTORY.

From these plants, power now flows to Camp Dunlap, to the Salton Sea seaplane base at Sandy Beach, to Camp Seeley, to the new navy airport near Seeley and to the C. A. A. Airways radio station.

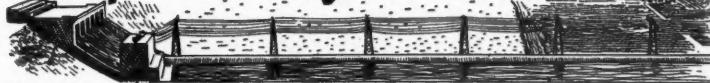
In addition if recommendation made by War Production Board is carried out the All-American canal power will be used to supply Imperial and Coachella Valleys, thus releasing imported power for coast areas.

It is giant engineering projects such as the All-American canal, Boulder dam, Parker dam and others of a like nature that will contribute in an all-out effort permitting us to emerge victoriously from this war of production.



PERHAPS EVEN MORE IMPORTANT . . . The All-American canal carries millions of gallons of water down to rich soils of the valley, where crops needed to feed armies ripen under warm sunshine.

Imperial Irrigation District



Use Your Own Power—Make it Pay for the All American Canal



By RANDALL HENDERSON

DESPITE the fact that it is almost sure to be a losing venture financially, the business men of Gallup, New Mexico, have announced that the annual Inter-Tribal Indian Ceremonial will be held as usual this year, the dates August 12-15.

Limitations on rubber will not keep the Indians away. Most of the Navajo, who greatly outnumber the other tribesmen at the Ceremonial grounds, travel in wagons or on ponies. It is a gala event for the Indians, not only because they enjoy the competition in dancing and sports events, but because of the generous prizes offered for their handiwork in pottery, weaving, basketry and other crafts.

The Indians look forward to the Gallup pow-wow, and I am glad they will not be disappointed. It is good for Indian and Anglo-American to get together in the spirit of carnival. For American motorists who have the time and rubber, this should be a good year to see the Gallup Ceremonial. Problems of accommodation and traffic will not be as acute as normally.

* * *

While no announcement has been made, we may be sure the Hopi clansmen will be holding their Snake dance the latter part of August in accordance with tribal custom. It will matter little to the Hopi whether white visitors come to their ceremonial or not. The Snake dance is a devout ritual, a prayer for life-giving rain—something far more important to them than any war in which their white neighbors are engaged.

* * *

I am not inclined to criticize the congressmen who voted to disband the Civilian Conservation corps. Perhaps there is more urgent need for the services of these young men and their officers elsewhere at the present time. But I can reconcile myself to this decision only as an emergency measure—not as a permanent policy. The CCC was one of the most constructive agencies of the entire New Deal program, and one that should be restored to its full strength and vigor as soon as this war is ended.

* * *

World interest the last few days has centered on the desert of northern Africa where one of the most critical battles of the war is in progress. At this writing, the decision has not been reached.

Only those who dwell on the desert can fully understand the punishment dealt to men, friend and foe alike, in carrying on mechanized warfare in summer temperatures on the Sahara. Guns, tanks, ammunition and human skill—all these things become secondary to the vital need for water—many gallons of it every day for each human body and motor-propelled vehicle.

It would be easier to form judgment as to the comparative strength of the opposing forces if the war correspondents would give us more information as to the water supply. Men may go for days without food, but at this time of year a few hours on the desert without water is fatal.

* * *

Here in the Desert Magazine office our staff members try to keep an open mind as to historical controversies in which positive information is not available, as it seldom is. But I must confess that I find it very difficult to go along with those archaeological sleuths, amateur and professional, who insist that the prehistoric Indians created the famous "Indian Maze" on the desert near Needles, California.

I have returned there again and again—and every visit merely strengthens my conclusion that there is nothing either aboriginal or mysterious about those uniformly-spaced windrows of pebbles on the desert mesa.

They may have been left there by the railroad construction crew at the time the Colorado bridge was built, as some authorities assert, or they may be the residue of a construction job done by soldiers stationed on the Colorado river at an earlier date. In any case, the "maze" closely resembles such a pattern as would have been created by an old-fashioned scraper sent out to skim rocks from the malpais surface. By no stretch of the imagination can I visualize Indians in breech-clouts spending weeks out on that mesa piling up rocks one by one in a project so meaningless.

But I cannot prove it, and your guess is as good as mine. It is not important, anyway.

* * *

In some way or other I seem to have gotten into the poets' doghouse. Anyway, one young lady read the "Just Between" page last month and then wrote me this note:

"I am glad you at last have admitted that a little poetry in the hearts of men would make this a better world in which to live." Signed, ILLENE.

Now ILLENE, you have me all wrong. I have always been in favor of poetry. I even wrote one myself once. The more poetry there is in this world the better. My only quarrel with the poets is that there are too many of them writing it and not not enough of them living it.

A poet who sends verses to the editor and then feels resentful when they are returned, isn't a poet at heart. Real poetry is an expression of inner beauty and harmony—not merely something for the world to applaud.

And besides, the temperature out here on the desert today is 115 degrees in the shade, and it is no time to be picking on a desert editor anyway.

BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

HE FINDS PEACE WITH HIS OWN TRIBESMEN

The problem of Indian youth, torn between two cultures, is epitomized in fictional form in the life of Martiniano, the chief character in Frank Waters' new novel, *THE MAN WHO KILLED THE DEER*.

Martiniano is duly exposed to the two conflicting ways of life and the resulting maladjustment places him at odds with both—a man between two worlds, unable to find contentment in either. At times the pendulum of his mixed loyalties swings toward Indian symbolism and the great cycle of Pueblo tribal life. Again it swings away, for he cannot quite bring himself to enter the tribal dances, wear a blanket or cut the heels from his shoes.

No longer able to control that inner rebellion, Martiniano kills a deer during the closed season on a federal range. Because the Indians are trying to keep their sacred Dawn lake property out from under governmental control, the authorities must be appeased. To show their good faith they whip Martiniano for his transgression. This is only the beginning of many such violent clashes with the tribal leaders.

Throwing tradition to the winds, the Indian youth marries a girl from another tribe. To make matters worse he drives a Mexican sheepherder from the Dawn lake property, precipitating a feud that has been smoldering between his tribe, the local Mexicans and the white commissioners. Out of this comes a congressional act giving the Pueblos a few years of grace, and for a time, at least, insuring their privacy and religious freedom.

But it is the mystic hold of the spiritual over the worldly, the inescapable cycle of tribal life, with its rituals of the seasons, the reverence for ancient beliefs and spiritual traditions that finally draw Martiniano back to his own people. The day comes when he walks forth in full acceptance of the Indian way of life. An old trader, seeing him, notices that Martiniano has at last cut the heels from his shoes.

Farrar and Rinehart, New York, 311 pp. \$2.50. —Marie Lomas

WISE OLD COYOTE

The author of "Pecos Bill and Lightning" brings to children more folk tales from the Southwest. In this collection the hero is Don Coyote, wisest of all animals. Leigh Peck tells his story in imaginative style warmed by friendly humor, under the general title, *DON COYOTE*.

What Raynard, the fox, is to European children, and what Brer Rabbit is to the children of the South, so Don Coyote is to the Indian and Mexican children of the Southwest. Always a champion of the under-dog, he nevertheless is not averse to taking advantage of the stupidity of other animals, just for the fun of it. But he is clever or he never could have persuaded O'Possum that he should hold up the world. Sometimes—like many clever humans—he gets fooled himself.

In the course of the stories Don Coyote helps a turtle win a race, he punishes a rattlesnake and he flies with the blackbirds. But it takes a locust to succeed in outwitting him.

There is something of both fable and of folklore in the tales and, best of all, they have an American flavor, replacing the age-old European folk stories that have been with us for more years than we care to admit.

Houghton Mifflin Co., Boston, 78 pp. \$2.00. Illustrations by Virginia Lee Burton.

HISTORIC DAYS IN EARLY CALIFORNIA

Heinrich Lienhard migrated from his native Switzerland to the new land of California to join Captain John A. Sutter in 1846. His diary was carefully kept through the four years that followed and the original manuscript is here translated for the first time by Marguerite Eyer Wilbur, under the title, *A PIONEER AT SUTTER'S FORT*.

To the student of California history, and to collectors of western Americana, the volume will have real significance. It is early California viewed in process of development, unimpaired by the natural erasures of Time. While past impressions are often concerned with the over-all picture painted in broad, sweeping strokes, omitting the characteristic details that gave California its individuality, this close-up serves to give the average reader details of life at Sutter's Fort, Sutter himself and many another well-known Californian (including Mr. Lienhard's personal opinion of them) as well as placer mining, Indian ceremonies, the laws, or lack of laws, as seen through the eyes of one who was on the ground.

It is written in the perspective of the day, reflecting life before the gold rush as it was actually lived—thus making available a glimpse into California history that heretofore was accessible only to those with the time and inclination for research. The serious reader will find genuine satisfaction in this diary that is completely devoid of all latter-day interpretations, so often highly colored in the light of subsequent events.

Wallace Hebbard, Santa Barbara, California, 291 pp. \$5.00. —Marie Lomas

NATURE BOOK FOR YOUTH

A-HIKING WE WILL GO, by Jack Van Coevering, is a nature book written for teen-age boys and girls. It is a series of stories about actual hikes taken along the Atlantic ocean, in in-

land lake and forest regions and the Rocky mountains, illustrated with more than 100 photographs taken on the hikes.

More than a mere account of the animal, bird, insect and plantlife found along the way, it is a stimulating lesson in observation. "A person with sharp eyes and listening ears may see more in a city park than an unobserving person would see in a remote wilderness. It matters not so much where you go hiking, but it matters a great deal how you go hiking." Moreover, it demonstrates that nature cannot be seen at its best from a car window. "One must keep his feet on the ground and his head in the clean fresh air to enjoy the adventures of hiking and to develop trained eyes and ears that will see the beauty and hear the music of our great outdoors."

J. B. Lippincott Co., 1942. \$2.50.

CHARACTER NOVEL DEPICTS LIFE IN GOLD-RUSH TOWN

Relentlessly working claims by day, weighing out gold dust at the bars and gambling houses at night—the people in a Montana gold-rush town move rapidly through the pages of Ernest Haycox's latest novel, *ALDER GULCH*, furnishing a stirring back-drop for the story of Jeff Pierce and Diana Castle.

So intent are these two on going their separate ways in the hard frontier town that romance fights a defensive battle until the end. Jeff had escaped from a ship where he had killed a man in self-defense. His early life had made him bitter; he trusted sparingly, asked no one for help, needed no one. Diana, beautiful and well-bred, left home to escape a marriage she did not wish. Determined to make something of herself in the rough country where she went with Jeff, a stranger, she established a bakery and a good reputation—both of which the Gulch had seen little of.

Softening of his bitterness, woven in with the clearing of the town of lawlessness, and the hardening of her already strong will in this gold-mad town makes stimulating reading. Much of the appeal of Haycox's story rests on the authentic ring given it in details characteristic of the period.

Little, Brown & Co., Boston, 303 pages. \$2.00. —Harry Smith

Prizes to Amateur Photographers

Each month the Desert Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the August contest must be received at the Desert Magazine office by August 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

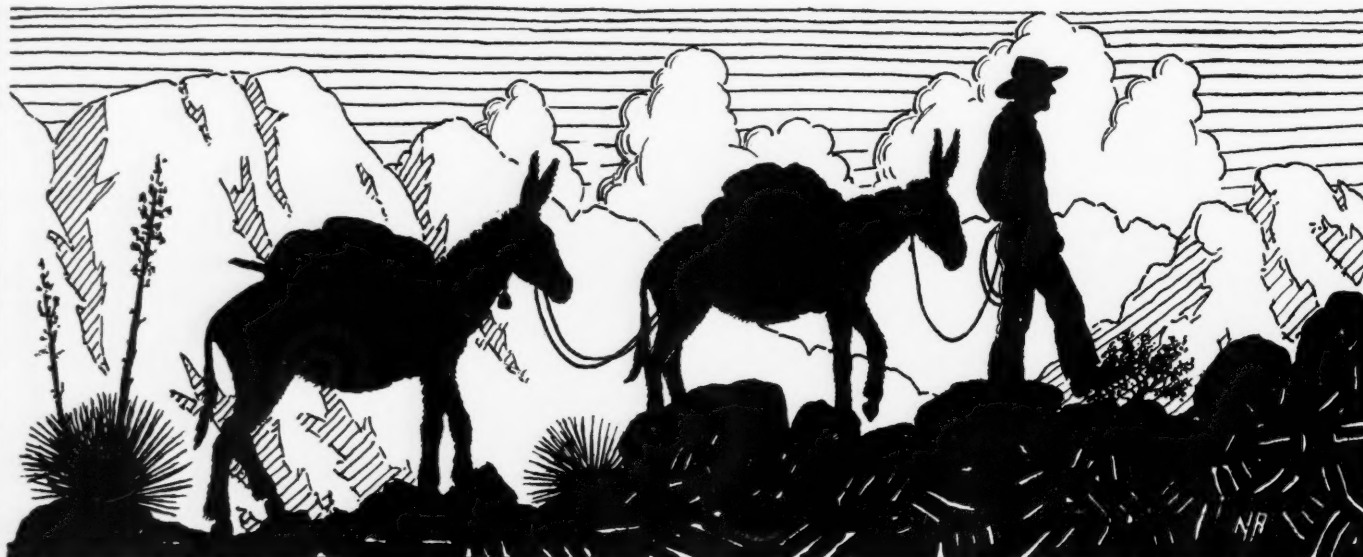
4—Prints must be in black and white, 3¼x5½ or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the August contest will be announced and the pictures published in the October number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.



FOLLOW THE WESTERN TRAILS . . . IN BOOKS!

Do you plan some day to visit Rainbow bridge?
Would you like to go shopping among the Navajo
for rugs?

Do you look forward to the time when you can camp
for a week on the North Rim of Grand Canyon?

Do your future vacation plans include trips to Chaco
canyon or Bandelier or Morro rock or Havasu can-
yon or Arches national monument?

These are just a few of the many delightful places
every American looks forward to seeing—when rub-
ber and time are available for travel again.

Your trip will be many times more enjoyable if you
use the spare hours now to become acquainted with
these scenic and historical areas. Desert Magazine's
selected book shelf will help you. Here are just a few
volumes that should be in every traveler's library:

80 ACOMA. Mrs. William T. Sedgwick. Story of the Indian
civilization of New Mexico's Sky City. Substance of all
that has been written on Acoma. Based on diaries, archae-
ological notes of Bandelier, Fewkes, Parsons and Hodge,
and legends and folk-tales. End-maps, photos, app., bib-
lio., index, 318 pp. **\$2.50**

71 INDIAN TRIBES OF THE SOUTHWEST. Mrs. White
Mountain Smith. Chapters on Acoma, Apache Indians,
Havasupais and Hualapais, Hopi Snake Dancers, Navajos,
Rio Grande Pueblos, Salt River Indians, Taos and Zuni
Pueblos. Chapters headed with useful information for
travelers. Endmaps, index, 146 pages. **\$1.50**

23 LANDMARKS OF NEW MEXICO. Edgar L. Hewett and
Wayne L. Mauzy. Invaluable guide to geographic, scenic
and historic landmarks, written by eminent archaeologists.
81 half-tone engravings, index, 200 pp. **\$3.50**

24 ARIZONA CARTOON GUIDE. Reg Manning. Terse and en-
tertaining, sprinkled with the humorous and satiric car-
toons which have made the author famous. Arizona on
parade—geography, history, Indians, cacti and natural
wonders. 16x19 caricature map, 124 pp. **\$1.00**

75 RHYTHM FOR RAIN. John Louw Nelson. Drama and an-
cient culture of the Hopi Indians, told in the epic story of
the Great Drought. Interpretation of Hopi rain dances by
a man who has a sensitive understanding of the Indian
mind. Paintings by Indian artists, photos, glossary of Hopi
words. 263 pp. **\$3.25**

76 HOPI GIRL. Mrs. White Mountain Smith. Realistic novel of
a Hopi girl, educated in white schools, who returns to the
ways of her people. 273 pp. **\$1.50**

28 ARIZONA. A GUIDE TO THE SUNSET STATE. Complete
information on historical and natural setting. Social, agri-
cultural and industrial development. 19 detailed tours.
Many halftone photos, maps. General tourist information,
chronology, biblio., 530 pp. **\$2.50**

30 NEVADA. A GUIDE TO THE SILVER STATE. Same com-
plete coverage as other volumes in this series. 8 tours.
Pocket map. 315 pp. **\$2.50**

31 UTAH. A GUIDE TO THE STATE. Follows style of this
series. Sections on national monuments and parks. 10
tours, 595 pp. **\$2.50**

ON DESERT TRAILS with Everett Ruess

Everett left a comfortable home to follow remote trails
in mountain and desert—his camp outfit on burros. He
camped with the Navajo, climbed precipitous cliffs to
explore ancient ruins, danced with the Hopi, he was
cold and hungry and footsore, but it was all a glorious
adventure. He saw the humor in every situation and the
beauty in every landscape. His letters and other notes,
illustrated with halftones and woodcuts, have been com-
piled in book form. Fascinating to adults, stimulating to
youth.

POSTPAID TO YOU \$1.50

29 NEW MEXICO. A GUIDE TO THE COLORFUL STATE. An-
other complete handbook in the American Guide series
of the Federal Writers Project. 18 tours. Special pocket
map. 458 pp. **\$2.50**

33 DEATH VALLEY. A Guide. Complete and beautifully il-
lustrated publication of the Federal Writers Project. Geol-
ogy, plant and animal life, history, followed by series of
20 tours with detailed information for travelers. Biblio., in-
dex, map, paper bound, **\$1.00.** cloth **\$1.75**

3 CALIFORNIA DESERTS. Edmund C. Jaeger. Complete in-
formation on Colorado and Mojave deserts. Plant and ani-
mal life, geography, chapter on aboriginal Indians. Draw-
ings, photos, end-maps. 209 pp. **\$2.00**

All books postpaid — Add 3% tax in California

Desert Crafts Shop

636 State Street

El Centro, California